



Greater Manchester Environment Fund (“GMEF”) Investment Strategy

January 2021



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1. Executive summary

1.1. Greater Manchester's Environmental Ambitions

The Greater Manchester Environment Fund (“GMEF”) is a pioneering regional impact investment vehicle, uniting public, private and philanthropic funding partners in a mission to tackle the urgent environmental challenges facing the Greater Manchester region.

Greater Manchester faces major environmental challenges that threaten the future health and prosperity of the city region, with dangerous levels of air pollution, degradation of priority habitats and increasing risks from climate change. In response, Greater Manchester launched its 5-Year Environment Plan with the ambitious vision for a “clean, carbon-neutral, climate resilient city region with a thriving natural environment” and demanded urgent action to achieve this.

Recognising that traditional grant and public funding will be insufficient alone to deliver the Mayor’s ambitions, Greater Manchester Combined Authority (“GMCA”) is pioneering a new approach to take on these challenges and safeguard Greater Manchester’s natural environment for the future.

A partnership between GMCA, Lancashire Wildlife Trust and Finance Earth has developed GMEF as an independent vehicle to support Greater Manchester’s ambitions for the restoration and improvement of its natural environment. GMEF is the UK’s first regional environmental impact fund, targeting social, environmental and financial outcomes and seeking to recycle capital back into realising Greater Manchester’s environmental ambitions over the long-term.

“If we are going to turn the tide and meet the double challenge of climate crisis and biodiversity crisis, then developing approaches such as the Greater Manchester Environment Fund are crucial. We aim to trailblaze and to turn theory into delivery.”

Anne Selby, Chair of the Greater Manchester Natural Capital Group

GMEF will be set up as an independent charitable vehicle to:

- Align existing restricted and unrestricted public funding streams for strategic use to benefit the environment;
- “Crowd in” and leverage private and philanthropic capital to catalyse further investment into the environment;
- Deliver grant funding, capacity building, seed funding and repayable investment for strategic environmental projects and funds, ultimately to help build a self-sustaining local environmental impact investment sector; and

- Deliver a consistent and transparent governance framework for funders and delivery bodies to set priorities, access funds and deliver accountable results.

GMEF is structured as a charitable body, managed by Lancashire Wildlife Trust with independence from GMCA and with representation from the public, private and philanthropic sectors, enabling it to:

- Benefit from a diverse range of informed stakeholders while being mission-driven in its chosen activities;
- Champion local policies and innovations to enable the Greater Manchester natural environment to flourish; and
- Coordinate public sector funding efforts with the private and philanthropic sectors to deliver significantly greater benefit, including through “blended finance” approaches.

LWT with the support of Finance Earth and GMCA has already secured key funding commitments for GMEF to enable it to begin to deliver on its mission and cover core costs to deliver the programmes, including:

- [£1.8 million awarded from Defra’s Green Recovery Challenge Fund](#) to boost environmental recovery through supporting 11 local partners to deliver the Greater Manchester Local Nature Recovery Strategy through a portfolio of collaborative projects and green job creation.
- £200,000 per year from Suez community fund to deliver grants into environmental projects for the benefit of communities across the city region.

While these secured funding sources cover the operational costs to deliver specific programmes of environmental investment, further pump-priming grants are needed to:

- Bring in much-needed capacity to build on this success by leveraging identified additional funding streams to meet GM’s long-term environmental objectives;
- Put GMEF onto a sustainable long-term footing to continue its mission and fulfil its potential to be the UK’s leading regional environmental impact vehicle and a blueprint for other regions to follow.

GMEF is now ready for launch with a developed pipeline of investment opportunities and is seeking long-term philanthropic funding partners to enable it to scale and leverage significant additional funds.

1.2. Background

In 2019, Greater Manchester launched its 5-Year Environment Plan (“5YEP”) setting out an ambitious vision for a “clean, carbon-neutral, climate resilient city region with a thriving natural environment”, and demanding urgent action to achieve this. To realise the ambition set by the UK Government’s 25 Year Environment Plan to improve the

natural environment within a generation, Greater Manchester’s 5YEP prioritises action to protect, maintain and enhance its natural assets and the multiple benefits they provide. To achieve its ambitions, Greater Manchester recognises the need to mobilise new sources of funding and align existing resources for the natural environment and support better connection between people and nature.

The 5YEP sets five key priorities to address the key threats facing the city region.^{1 2}

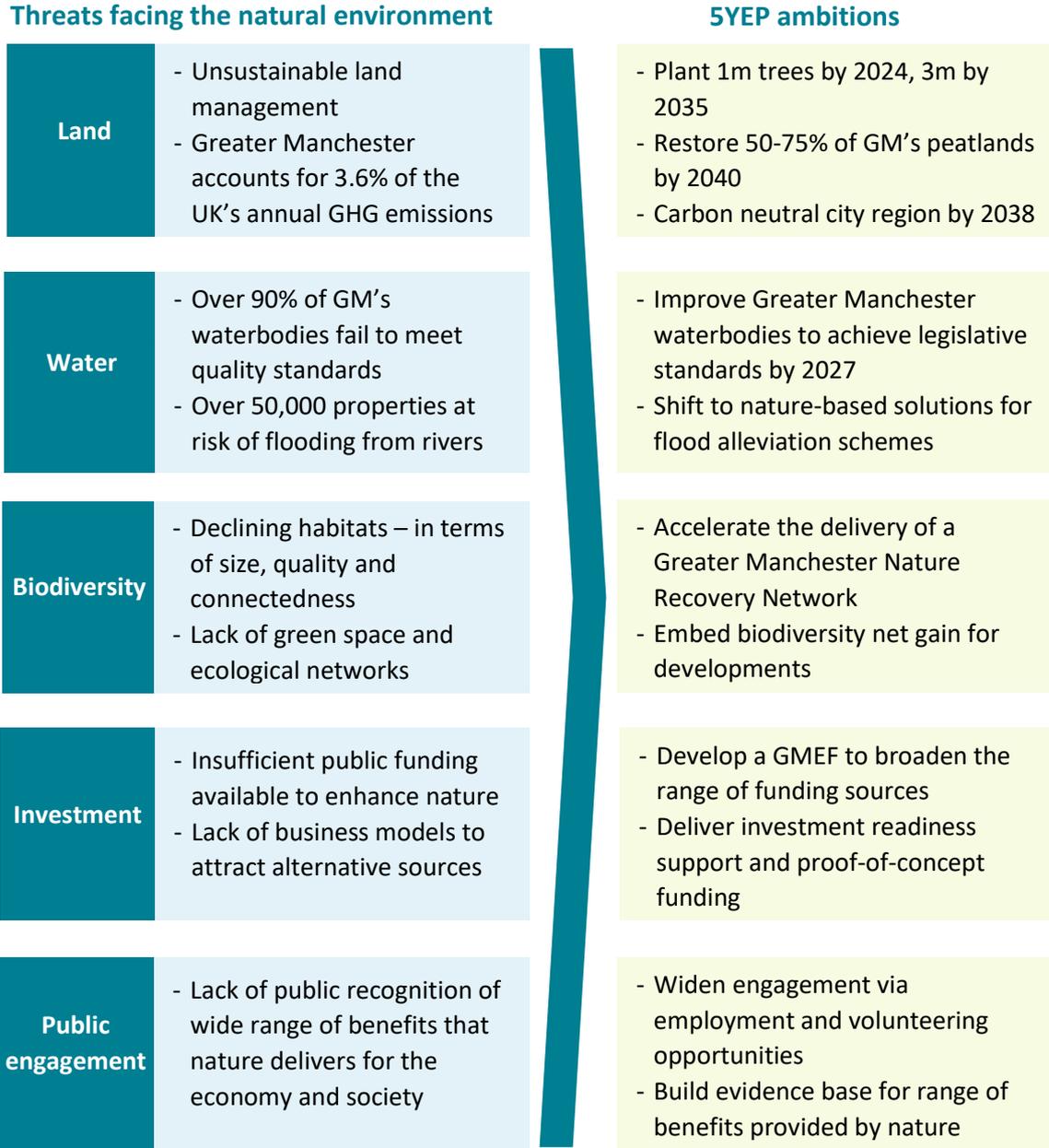


Figure 1. 5 Year Environment Plan Priorities

The Covid-19 pandemic has only increased the importance of delivering on these ambitions to boost the local economy, create jobs, increase climate resilience and enhance the wellbeing of Greater Manchester’s residents.

1.3. Funding Need for the Environment

A significant amount of additional funding is needed to deliver Greater Manchester’s environmental objectives and develop and deploy local nature-based solutions (“NBS”), much of which will need to come from non-public sources. A preliminary analysis performed of costed environmental projects in Greater Manchester seeking funding identified a funding need in excess of £100 million.

Public and philanthropic capital is insufficient alone to meet the funding needed to protect Greater Manchester’s natural environment. Public funds that are available are often segregated and managed independently, preventing strategic allocation for target projects.

NBS such as ecological restoration and urban green infrastructure currently draw upon limited funding resources. NBS project developers tend to suffer from a lack of:

- Viable business models to access private investment;
- Project scale and aggregation opportunities;
- Arrangements for accountability and governance;
- Detailed understanding of the value of benefits provided by NBS; and
- Capacity to innovate and develop new funding opportunities based on these benefits.

There is an urgent need to attract new sources of funding to enhance the city region’s natural environment, and to deploy existing sources more strategically. Delivering NBS will lead to green jobs across a range of skill levels, improvements in public health and wellbeing through increased public access to and engagement with nature, and greater economic resilience through flood mitigation and pollution removal.

Greater Manchester is uniquely placed to act as a pioneer in the NBS investment sector thanks to the recognition by its devolved leadership of the importance of protecting nature for future generations and the unique ecological restoration opportunities that exist across the city-region.

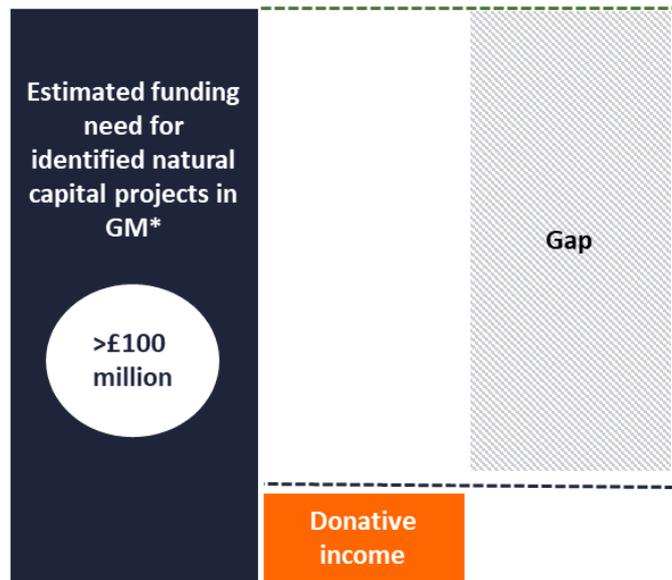


Figure 2. Funding gap for GM’s natural capital

** Based on a high-level review of 26 projects providing cost estimates. A further 25 projects were identified but not costed, so this is likely to be a significant underestimate of the actual need.*

2. GMEF Overview

2.1. GMEF Opportunity

Extensive consultation with city region-wide stakeholders and project developers has demonstrated the considerable need to create GMEF in order to mobilise the additional funding and investment required to deliver Greater Manchester’s ambitions of becoming a world-leading green city and restoring its natural environment. GMEF provides a transparent framework for funders and delivery organisations to set regional priorities and facilitate local projects that can deliver substantial social and environmental impact.

	Status Quo	GMEF Opportunity
Project Developers	<p>Funding pressures</p> <p>Ad-hoc and typically short-term grants available from disparate sources for NGOs to enhance and restore the environment, facing greater pressure due to Covid-19.</p> 	<p>Reduce funding pressures</p> <p>Provide a coordinated approach and governance framework involving public, private and third sector stakeholders to source and channel funding.</p>
	<p>Capacity constraints</p> <p>Limited capacity and technical expertise available to create investable propositions to secure new sources of investment.</p> 	<p>Increase capacity</p> <p>Deliver funding for technical assistance and capacity building to enable organisations to access blended finance opportunities.</p>
Investors	<p>Growing interest in environmental initiatives</p> <p>Funders are seeking new opportunities to deliver environmental impact alongside financial returns.</p> 	<p>Develop investable business models</p> <p>Deploy funding strategically to develop investable business models that can attract private investment.</p>
	<p>Lack of investment-ready projects</p> <p>Limited pipeline of projects that demonstrate robust business cases, the potential for replicability, and at sufficient scale to attract private capital.</p> 	<p>Aggregate and leverage new funding sources</p> <p>Align public and private funds and use repayable finance where appropriate to free up grant resources for high impact but non-investable projects.</p>

Table 1. GMEF Opportunity Overview

2.2. GMEF: A pioneering regional environmental fund

Greater Manchester is exploring new approaches to investing in the environment through GMEF.

In 2018, Greater Manchester was granted “Urban Pioneer” status by DEFRA, tasked with trialling new methods to funding natural capital to inform the delivery of the Government’s 25-Year Environment Plan.

Greater Manchester pioneered the creation of the first Natural Capital Investment Plan (“NCIP”) for a UK city region to establish Greater Manchester’s natural capital baseline accounts and set priorities for sustainable investment into its assets. The NCIP identified a critical need for project developer capacity building and technical assistance to facilitate the development of investable business models.

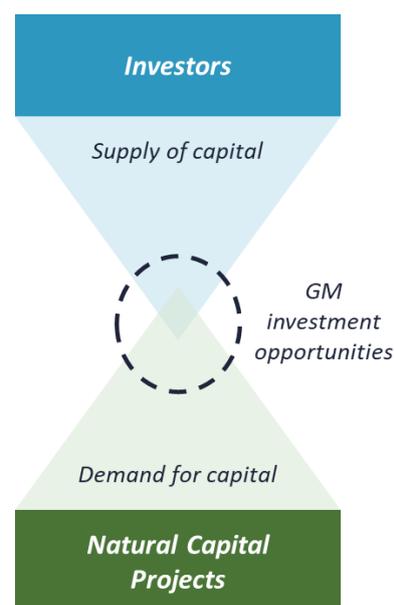


Figure 3. Investment Opportunities

GMEF provides a mechanism to develop and implement these opportunities and unlock new investment sources. GMEF seeks to provide both “top down” and “bottom up” support to the natural capital sector in Greater Manchester, in the form of:

- Alignment of existing restricted public funding streams (e.g. environmental enforcement funds) to leverage private investment for strategic deployment;
- Repayable finance to crowd in private sector capital and fill project resourcing gaps; and
- Capacity building and technical assistance support to increase the number of investable projects across Greater Manchester.

A Replicable Approach

The process to develop GMEF is replicable across and highly relevant to other city regions and conservation sectors. GMEF offers a pioneering model to align public, private and philanthropic funding to deliver far-more than an independent funding programme. In providing a place-based funding aggregation vehicle and governance framework to broaden funding sources to deliver a region’s environmental priorities: the GMEF structure and approach can be applied across urban, rural and marine contexts.

The development of GMEF, as part of the legacy of the UK Government’s Urban Pioneer, is a key focus for local and national organisations looking to trial new approaches for natural capital investment. Local authorities across the UK are already adopting Greater Manchester’s approach in the development of innovative funding models tailored to their individual objectives.

2.3. Greater Manchester: The Urban Pioneer

Through its journey of building political and stakeholder ambition, Greater Manchester is at the forefront of the nascent environmental impact investment sector, unifying public, private and third sector efforts. The development journey outlined below illustrates the key steps taken by Greater Manchester stakeholders to build momentum for innovative approaches to natural capital investment, culminating in GMEF's establishment.

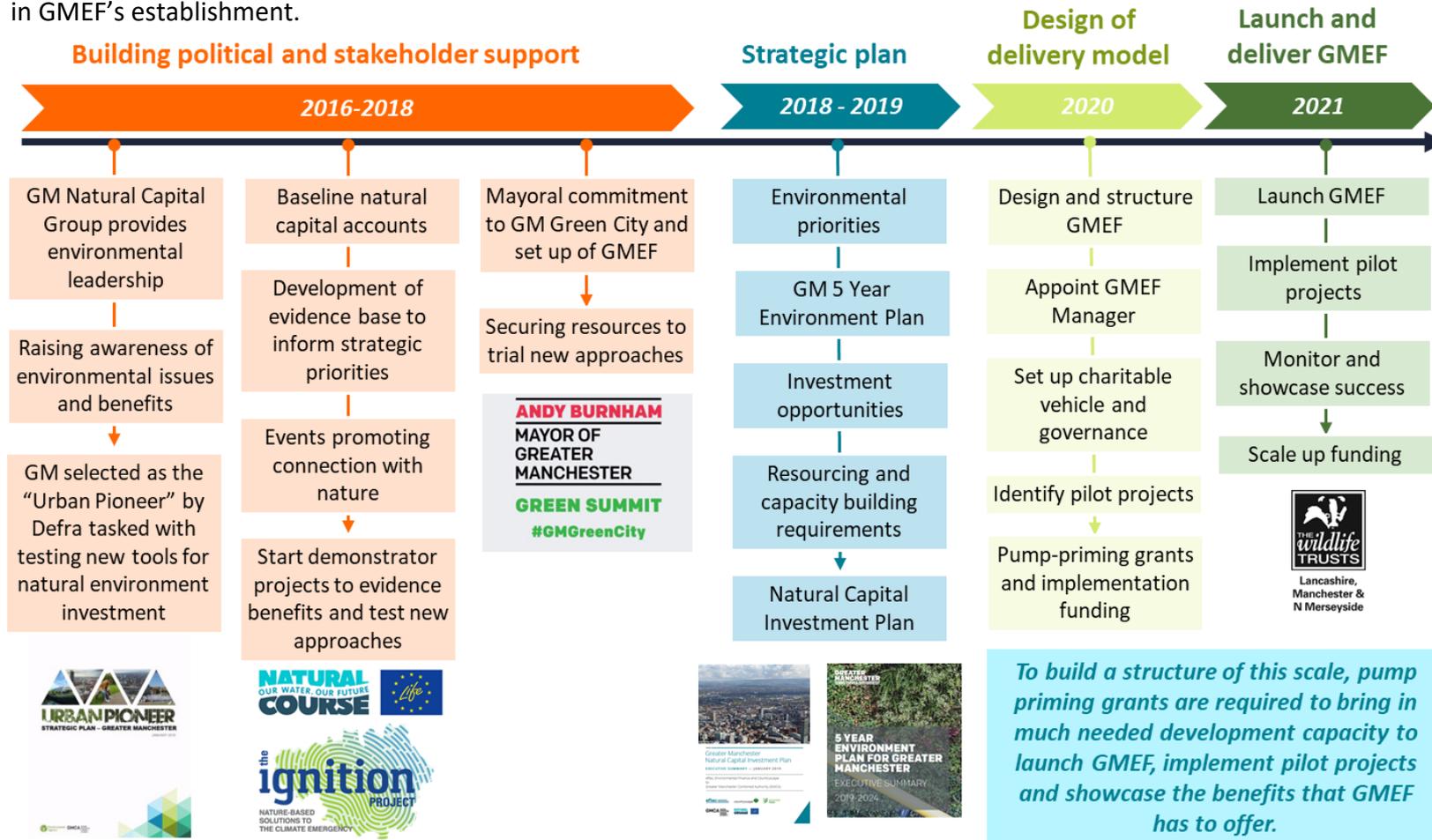


Figure 4. GMEF Development Journey

2.4. GMEF Structural Overview

GMEF is a unique approach taken by a UK city region to strategically aggregate and leverage funding through an independent governance vehicle to deliver its environmental ambitions. It provides a transparent mechanism to collate funding sources and provide a governance framework to house further vehicles designed to fund specific natural capital projects in Greater Manchester.

GMEF operates as a charitable vehicle managed by Lancashire Wildlife Trust (the “Fund Manager”). Lancashire Wildlife Trust provides technical expertise, local network and experience in running charitable vehicles for fund deployment.

GMEF collates a range of non-restricted funds (such as public and philanthropic grants) and restricted funds (such as enforcement funds) to strategically channel into delivering Greater Manchester’s environmental priorities. GMEF uses this funding for:

- Strategic direct project support; and
- Creating specialist sub-funds focusing on natural capital business models that unlock restricted funding streams and mobilise private capital.

Returns beyond those due to other investors will be recycled back into GMEF to support its environmental aims.

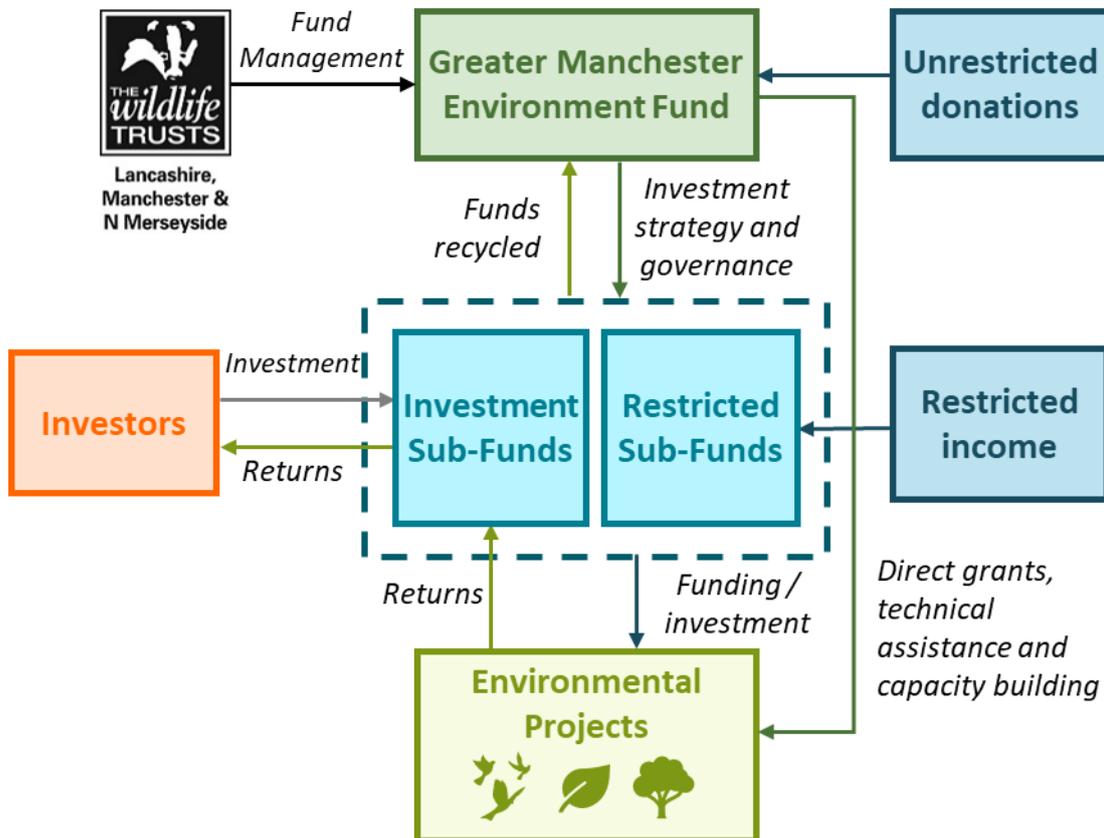


Figure 5. GMEF Structure

2.5. GMEF Theory of Change

The GMEF Theory of Change sets out the steps that GMEF will take to deliver its vision to establish an independent self-sustaining fund to support the delivery of Greater Manchester’s environmental ambitions over the long-term. The Theory of Change outlines the short, medium and long-term outcomes GMEF is seeking to achieve to support its vision.

Problem	Activities	Immediate Outcomes	Medium Term Outcomes	Strategic Outcomes	Vision
Funding pressures on NGOs and public sector seeking to address the threats facing Greater Manchester’s natural environment	Strategic fundraising and coordination of new and existing public and philanthropic funding	Deliver direct grant funding into projects	Reduced funding pressure on natural capital project delivery organisations	Greater Manchester’s natural capital is sustainably funded through a blend of public, private and philanthropic capital	An independent self-sustaining fund established to support the delivery of Greater Manchester’s ambitions to achieve a clean, carbon-neutral, climate resilient city region with a thriving natural environment over the long-term
Limited project developer capacity and expertise to develop new funding models	Raise funding to provide third party technical assistance and capacity building to create pilot investments	Strengthen skills and capabilities of project developers to develop robust business models	Project developers have increased capacity to develop robust business models and access new funding sources	Stimulation of a pipeline of investable projects	
Lack of grant funding available to protect and enhance Greater Manchester’s natural environment	Investor engagement and fundraising to secure repayable finance	Raise investment to fund pilot projects and provide proof of concepts	Leverage additional private investment into natural capital projects	Channel increased investment in Greater Manchester’s natural capital and free up grant resources	
Lack of arrangements for delivery, accountability and governance	Independent fund manager in place to run charitable entity with advice from local stakeholder expert Advisory Groups	Overarching governance framework established to house funding vehicles and set priorities	Consistent and transparent decision-making framework applied for environmental objectives	Delivery of Greater Manchester’s strategic priorities, providing learnings for other city regions across UK and Europe	

Figure 6. GMEF Theory of Change

3. Funding and Investment Opportunities

3.1. Natural Capital Business Models

GMEF aims to help build market infrastructure for greater investment in Greater Manchester’s natural capital, with the goal to scale up activities that enhance its natural environment through the development and implementation of new business models. Natural capital business models are designed to deliver a range of positive environmental outcomes, for nature, society and the economy, while achieving a risk-adjusted financial return on the capital invested. These models rely on a clear proof-of-concept project and proven track record to attract private capital in order to scale.

Natural capital investment models include:

- Offsets (e.g. biodiversity, carbon);
- Results-based payments for NBS outcomes;
- Sustainable forestry; and
- Sustainable farming.

These projects differ from traditional, grant-based conservation projects through:

- Typically being designed around revenue-generating activities that recover costs and generate a return on investment;
- Attracting different investor bases (i.e. more return-seeking “impact investors” vs. philanthropists); and
- Providing much larger potential for scalability and replicability.

Natural capital investment models typically require several development phases before they are ready to secure investment, outlined below in the nature-based project development schematic created by the Broadway Initiative, the Green Finance Institute and Finance Earth³. Projects identified in Greater Manchester are either at the technical proving or monetisation phase within this process, requiring investment readiness support to attract repayable capital.

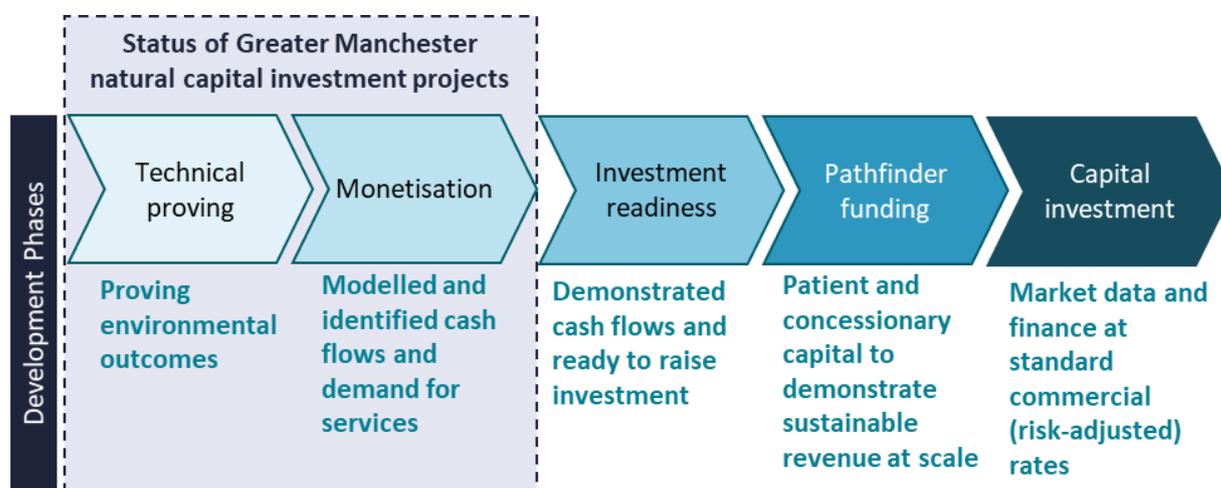
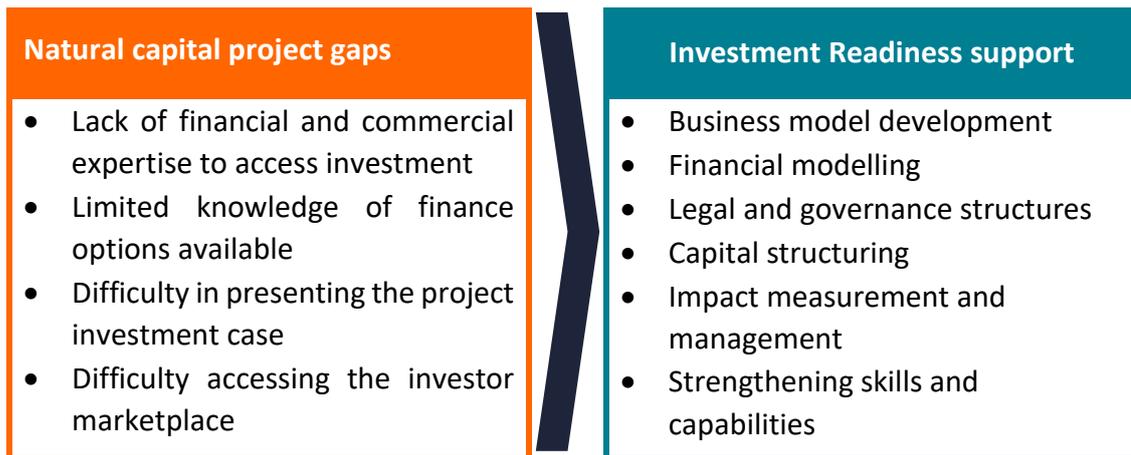


Figure 7. Project Development Phases

3.2. GMEF Investment Readiness Support

A key role for GMEF is to provide investment readiness support to natural capital projects where capacity is lacking to develop the projects to a stage where repayable finance can be secured. This support seeks to address the investment barriers restricting market growth by providing project delivery organisations with the support and skills required to raise and manage investment. GMEF will seek to scale up and crowd in private funding by providing regionally focused investment readiness support to create replicable pilot investments.



3.3. Precedent Structures

In social and environmental impact investment markets, similar structures have been used to catalyse significant levels of additional funding to solve societal challenges. A growing number of blended impact investment funds are being launched globally.

Social Investment Market	Global Conservation Finance Market
<ul style="list-style-type: none"> • Social impact investment in the UK is now a £5.1 billion market, having grown twenty-fold from 2011-19.⁴ • Market growth has been catalysed by the establishment of the social investment bank, Big Society Capital (“BSC”). Since 2012, £600 million of catalytic capital has leveraged £1.4 billion of social investment from other investors in 1,200 social enterprises.⁵ • Capacity building and technical support provided has been instrumental in attracting private capital in the market. 	<ul style="list-style-type: none"> • Globally, annual finance flows into biodiversity are up to £114 billion.⁶ • In 2019, the private sector committed £12.8-£19.2 billion to conservation investments seeking measurable environmental benefits in a rapidly growing global market.⁷ • US domestic policy has driven the growth of the ecological restoration industry to support £20 billion in annual economic output and 220,000 jobs.⁸
<p>Example: Access Foundation (9)</p>  <ul style="list-style-type: none"> • Access was set up in 2015 with a mission of making charities and social enterprises more financially resilient to increase their positive impact on society. • A partnership between Access, Big Lottery Fund and BSC created the Access Growth Fund with £22.5m of grant and loan capital to seed new social investment funds, develop enterprise activity and address a range of social issues. • Access has made 499 investments in charities and social enterprises to date. 	<p>Example: EU Natural Capital Finance Facility (“NCCF”) (10)</p>  <ul style="list-style-type: none"> • The EU’s NCCF offers finance to projects that promote the restoration of natural capital for biodiversity and adaptation. The NCCF consists of two elements: <ul style="list-style-type: none"> ○ A financing facility providing €2-15 million of repayable investment per project. ○ A technical assistance facility providing grants of up to €1 million for project preparation, implementation and outcomes monitoring. • Projects financed to date include biodiversity offsetting schemes, green infrastructure for urban resilience and rewilding initiatives.

Table 2. Precedent Investment Structures

3.4. Greater Manchester Market Engagement and Opportunity Analysis

Throughout 2020, the GMEF partnership between Lancashire Wildlife Trust, Finance Earth and GMCA engaged with a wide range of stakeholders in the city region to support the design of GMEF and assess funding and investment opportunities. Through this engagement, the GMEF partnership sought to identify at a high level the number and total value of natural capital projects seeking funding across the city region and understand the mix of revenue generation opportunities across the project pipeline.

Project Review Process

Over 50 local natural capital projects in development were put forward by key partners. A project funding gap of well over £100 million was identified from the projects that had provided cost estimates, representing under half of the projects reviewed.

Major opportunities were identified to mobilise private investment in habitat creation and restoration through generating biodiversity net gain and carbon income streams.

The review process indicated that there was likely to be high demand for the establishment of a Habitat Banking Facility and Carbon Mitigation Facility to support and provide funding to projects – more detail on these initiatives is provided in Section 4 and 5.

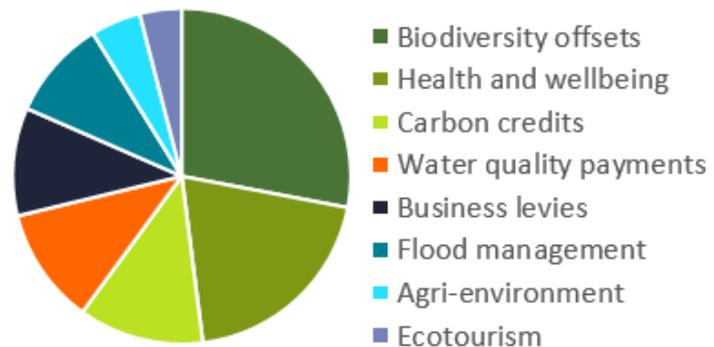


Figure 8. Project Revenue Opportunities

Nearly 50 stakeholder conversations were held with 26 organisations across private, public and third sector organisations. The process evidenced the opportunity for GMEF to better align public and philanthropic funding sources and expand private investment into Greater Manchester's natural

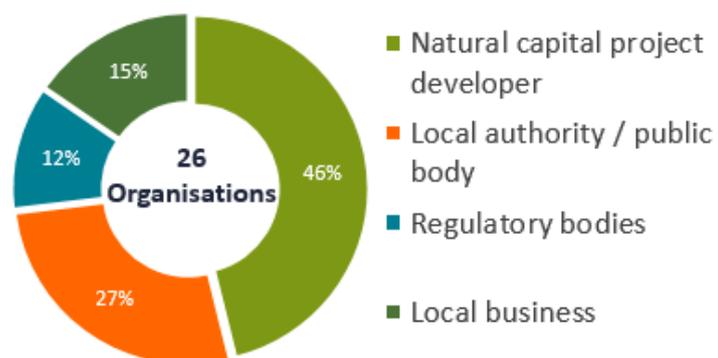


Figure 9. Stakeholder Engagement Summary

capital. The results were used to develop and refine the proposed investment opportunities and tailor GMEF's design towards the distinct attributes of the Greater Manchester region and the needs of its stakeholders.

3.5. GMEF Funding and Investment Horizon

Liaison with a broad range of Greater Manchester stakeholders and a dedicated GMEF Advisory Group evidenced the significant opportunity for GMEF to raise public, philanthropic and private funds to deliver a thriving natural environment in Greater Manchester. Funding contributions of c.£200,000 per year have already been committed from SUEZ as part of its corporate community funding programme, paving the way for contributions from other environmentally-conscious corporates with an interest in Greater Manchester.

	Short Term (<1 year)		Medium Term (1-3 years)*		Long Term (3-5 years)*	
Non-repayable funding	Pump-priming public and philanthropic grants	To provide much-needed development capacity and to pilot approaches	Clean Air Fund	Ambition to launch a Clean Air Zone plan to reduce emissions through taxation	Corporate sponsorship and individual giving	Long-term corporate partnerships and individual giving based on GMEF showcasing success
	Corporate funding programmes	Deliver corporate programmes – £200k committed from Suez Community Fund	Enforcement undertakings	Fines for pollution issued by the EA	Plastic bag / waste levies; business levies	Levies through retail partnerships and / or Business Improvement District initiatives
Repayable investment	Habitat Bank Facility	Further detail provided in section 4 to 6	Sustainable Drainage Scheme (“SuDS”) fund	Private investment mechanisms for SuDS are in development through the EU-funded IGNITION programme	Built environment carbon fund	GM is considering a mandatory carbon offsetting approach to delivering net zero carbon development
	Carbon Mitigation Facility		Environmental Impact Bonds	Results-based payment models are being explored to finance NBS	Low-carbon / circular economy	Incorporate investment funds to achieve wider low carbon ambitions

Figure 10. GMEF Funding and Investment Horizon

* Funding opportunities are indicative based on an initial review and stakeholder engagement. Further work is being undertaken by Lancashire Wildlife Trust to assess the opportunity to incorporate medium/long term funding sources within GMEF. Other funding opportunities may also become available.

4. Investment Model Opportunity: Habitat Bank Facility

4.1. Opportunity Overview

GMEF is seeking to establish a centralised investment vehicle to provide funding and support to habitat creation and restoration projects across Greater Manchester, taking advantage of the new market arising from emerging biodiversity net gain (“BNG”) policy.

The proposed “Habitat Bank Facility” is intended to build on the momentum of national policy and local expertise to position Greater Manchester as a leading region for attracting repayable finance to create and restore habitats at a city region scale while providing verified BNG credits to developers.

4.2. Introduction to Biodiversity Offsetting and Net Gain

‘Biodiversity Offsetting’ aims to compensate for the unavoidable negative impact to habitats and the functions they provide caused by development activity. Offsetting measures should only be used after previous steps in the Mitigation Hierarchy, outlined in Figure 11, have been exhausted. Offsets must also achieve additionality: conservation outcomes that would not have been delivered otherwise.

BNG is an approach to development that seeks to measurably enhance biodiversity. Where an offset is provided this should exceed the impact it compensates for by at least 10%, as set out in the Environment Bill presented to parliament in 2020.

The Mitigation Hierarchy

The National Planning Policy Framework sets out how the Mitigation Hierarchy should be followed in planning proposals for managing the negative ecological impacts of developments, with harm to biodiversity being compensated for only as a last resort as detailed below.

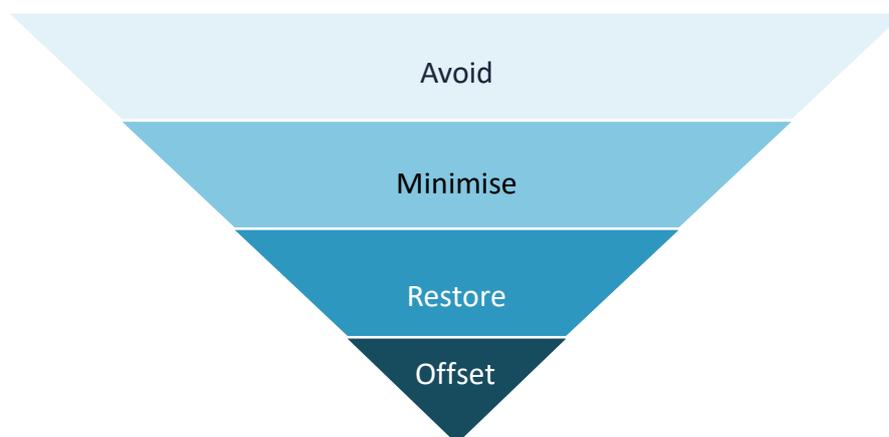


Figure 11. Mitigation Hierarchy

4.3. The Habitat Banking Business Model

Habitat Banking is a conservation approach whereby habitats created generate BNG “credits” that can be sold to developers to compensate for the impact on biodiversity from new developments.

This provides an income stream to the habitat providers, and effectively an off-the-shelf solution for developers seeking offsets.

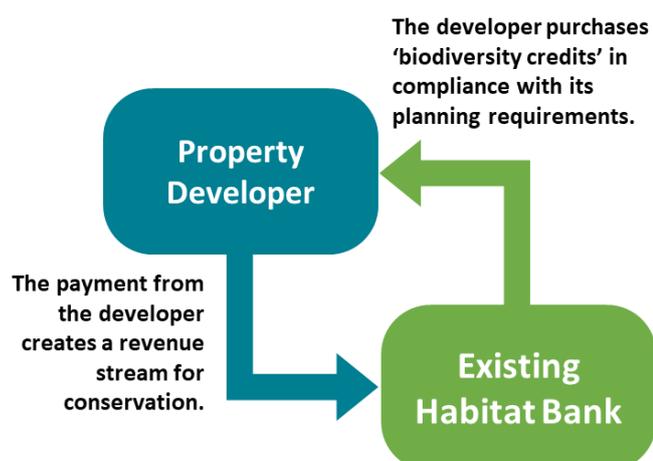


Figure 12. Habitat Banking Business Model

This mechanism allows for compensatory habitats to be delivered in advance of the impact of proposed developments, as well as funding for nature to be secured based on the future income streams from the sale of BNG credits.

With effective policy and delivery structures in place, Habitat Banking could lead to the establishment and long-term protection of large-scale ecological networks.

Key benefits of Habitat Banking include:

- **Attracting private investment into nature:** establishing a market for BNG credits with confidence over the demand and pricing for credits would enable private capital to flow into habitat restoration projects.
- **Ecological network-building:** Habitat Banking facilitates the aggregation of sites, supporting ecological networks and more substantial monitoring, reporting and evaluation compared to on-site measures, providing greater certainty of environmental outcomes delivered.
- **Upfront delivery:** Habitats are created in advance of harm caused by developments, with developers purchasing BNG credits during the planning process.
- **Long-term protection:** Lasting protection for newly-created habitats can be achieved through “conservation covenants”. A portion of BNG credit income can be provided to an endowment to fund long-term habitat maintenance, typically over a 30-year period.

4.4. Habitat Banking: The Global View

More than 100 countries worldwide observe biodiversity offsetting policies, with 8 million hectares of land per annum protected through offsetting approaches.¹¹ Where effective policy is in place, significant markets for funding habitat creation and restoration have developed.

In the US, Germany and Australia, supportive policy has enabled a large-scale market-based approach to habitat creation to develop, with 2,500 Habitat Banks operating across these three countries. In the US alone, £3.8 billion of biodiversity credits are transacted with developers annually, double the annual transaction value in 2011.¹²

International Habitat Bank enterprise example: Ecosystem Investment Partners

Enterprise Investment Partners (“EIP”) is a US private equity firm established in 2006. EIP owns and operates 44 large-scale mitigation banks. EIP acquires degraded habitats and seeks to restore them and obtain permanent protection by law. Through this process, EIP generates and banks mitigation credits for wetland, stream and endangered species. EIP then sells these credits to parties seeking to offset unavoidable ecological harm from developments. Working closely with public agencies and non-profit organisations responsible for oversight and stewardship of land and water resources, EIP designs and implements projects that address regional conservation and restoration goals at a meaningful scale.



Ecosystem Investment Partners

Target investments	Land with high conservation value and the potential to generate mitigation credits
Investment size	\$10-50 million to restore 400-12,000 ha
EIP funds	\$939 million institutional investment raised across 4 funds
EIP investors	Public pensions, endowments, and High Net Worth Individuals



4.5. Habitat Banking in the UK: Policy Development

The UK Environment Bill, introduced in Parliament in January 2020, contains a mandatory requirement for BNG in the planning system, ensuring that habitat gains of 10% or more are created over the losses expected to be incurred from new developments. These gains will be measured through quantified and interchangeable BNG credits using the Defra Biodiversity Metric.

Expected national impact of BNG policy

5,500ha

Private sector demand for habitat creation per year

£200m

Private sector revenues for habitat creation per year

The Environment Bill requires the development of Local Nature Recovery Strategies across England to help direct BNG investment. The policy is expected to result in the creation of several thousands of hectares of habitat for wildlife each year.

The new regulations are expected to bring about reliable future revenue streams from the sale of BNG credits, providing a major opportunity to attract private capital into the market for habitat creation and restoration. The income opportunity for strategic habitat creation and restoration is estimated to be c.£200 million per year in England.¹³

This new policy presents the opportunity to raise private repayable investment in Habitat Banking, allowing priority habitats to be created or restored by third parties and providing offsite BNG options for developers in advance of the impact of proposed developments.

4.6. BNG Policy Development in Greater Manchester

Greater Manchester has ambitious targets to embed BNG within development as part of its commitment to becoming a green city region. Widespread political and stakeholder ambition is in place to support BNG policy development and implementation in Greater Manchester.

The work of key groups, detailed below, in Greater Manchester has provided a significant evidence base to inform strategic policies:

- **The BNG Task Group**, with membership from the ten councils

Benefits of a Greater Manchester BNG approach



Generating new investment in strategic delivery of GM's Nature Recovery Network and ensuring funding is optimally spent



Increasing the quality and quantity of local greenspaces to benefit community well-being



Supporting a green city region and delivering the Mayor's zero carbon target

- of Greater Manchester, developers, NGOs and government agencies; and
- **The Greater Manchester Natural Capital Group**, a Local Nature Partnership with public, private and third sector membership.

GMCA has been developing a BNG delivery model since 2018 to inform best practice to strategically enhance biodiversity ahead of national legislation. Implementation of BNG is part of a broad range of green city region initiatives, including:

- **The Greater Manchester 5-Year Environment Plan** sets out the commitment to support the delivery of BNG and the creation of a Greater Manchester Nature Recovery Network as key priorities;
- **The Greater Manchester Spatial Framework** commits to seek BNG for new development across the city region;
- Greater Manchester was selected as one of five **Defra pilots** to test the approach to developing **Local Nature Recovery Strategies** to identify nature sites critical to restore (a key commitment made in the Environment Bill as part of BNG policy);
- **Salford City Council** is leading the way in Greater Manchester's BNG market development as the first council to include BNG in its Local Plan, with plans to launch mandatory BNG policy in mid-2021, well in advance of national legislation.

4.7. Market Engagement and Analysis

To assess the opportunity for BNG development in Greater Manchester, Finance Earth engaged with a wide range of Greater Manchester stakeholders, including Greater Manchester's BNG Task Group, local planning authorities, regulatory bodies, Greater Manchester-based developers and conservation NGOs.

Stakeholders were supportive of the opportunity to establish a Greater Manchester Habitat Bank Facility to provide both tailored funding and a proven delivery process to support local planning authorities in the delivery of BNG. A Habitat Bank Facility would enable the city region to fulfil its potential as a pioneering market for BNG and allow it to balance its economic and environmental objectives.

Salford City Council was identified as the most advanced council in terms of BNG policy development with ambitions to move ahead of national policy to establish its own local BNG policy framework by mid-2021. The market engagement process indicated the need to deliver a pilot investment to restore strategic habitats in the Salford region and provide a proof-of-concept of the investment model and delivery process. This will support policy development across Greater Manchester and provide valuable learnings to enable investment to be delivered for BNG across the city region as district-level policy is implemented and UK legislation comes into force.

	Status	Greater Manchester Opportunity
Policy	<ul style="list-style-type: none"> • Strong political ambition is in place to support BNG policy development. • Council-level policy is under development at various stages supported by the BNG Task Group. • Salford’s BNG policy is out for consultation with a strong appetite to deliver a pilot BNG project to prove the delivery model ahead of UK legislation. 	<ul style="list-style-type: none"> • Habitat Banking infrastructure would enable councils to deliver on local housing provision and biodiversity targets by speeding up the planning process and maximising ecological benefits across Greater Manchester. • Delivery of a pilot investment in Salford ahead of national policy would inform best practice and unlock investment to deliver habitats across Greater Manchester.
Funding needs	<ul style="list-style-type: none"> • No mechanism is in place to enable councils to efficiently deliver BNG and set up Habitat Banks once policy is in place. • There is high upfront costs and uncertainty over the process, timescales and costs involved in delivering BNG. 	<ul style="list-style-type: none"> • Upfront funding is needed to enable district-level Habitat Banks to be set up over time to enable Greater Manchester to deliver its biodiversity targets and Nature Recovery Network • Upfront funding and centralised verification should be provided on an aggregated basis to minimise delivery costs and increase the level of funding provided to projects.
Project delivery	<ul style="list-style-type: none"> • GM-based organisations, including developers, councils and NGOs, have a range of strategic biodiversity objectives and projects with funding gaps. 	<ul style="list-style-type: none"> • A dynamic market would be created by enabling Habitat Banks to be delivered by a range of third parties to establish ecological networks and generate new green jobs.

Table 3. Summary of Market Engagement Results

BNG Income Opportunity Assessment

To assess the opportunity to secure upfront investment in habitat creation and restoration for BNG, Finance Earth worked in close collaboration with Salford City Council, Greater Manchester Ecology Unit (“GMEU”) and the Greater Manchester BNG Task Group to forecast potential income levels that could be generated through the sale of offsite BNG credits in Greater Manchester.

Finance Earth analysed the development pipeline for Salford to project annual BNG income levels expected to be received from developments in the area over a five year period. This assessment indicated that over £300,000 could be generated annually in the district for offsite BNG (based on a prudent estimated credit value of £12,000 per BNG unit established through consultation with GMEU and market analysis). This income stream could attract over £1 million upfront private investment to deliver strategic habitats in the area. A preliminary assessment of the whole Greater Manchester region (key assumptions in the [Appendix](#)) suggests an annual offsite BNG income of £5.5 million to £6.4 million, reflecting a sizeable Habitat Bank investment opportunity.

4.8. Greater Manchester’s Habitat Bank Facility

The Habitat Bank Facility is designed to enable the delivery and operation of a number of habitat creation/restoration projects across Greater Manchester, while recycling funds into new projects on a continual basis.

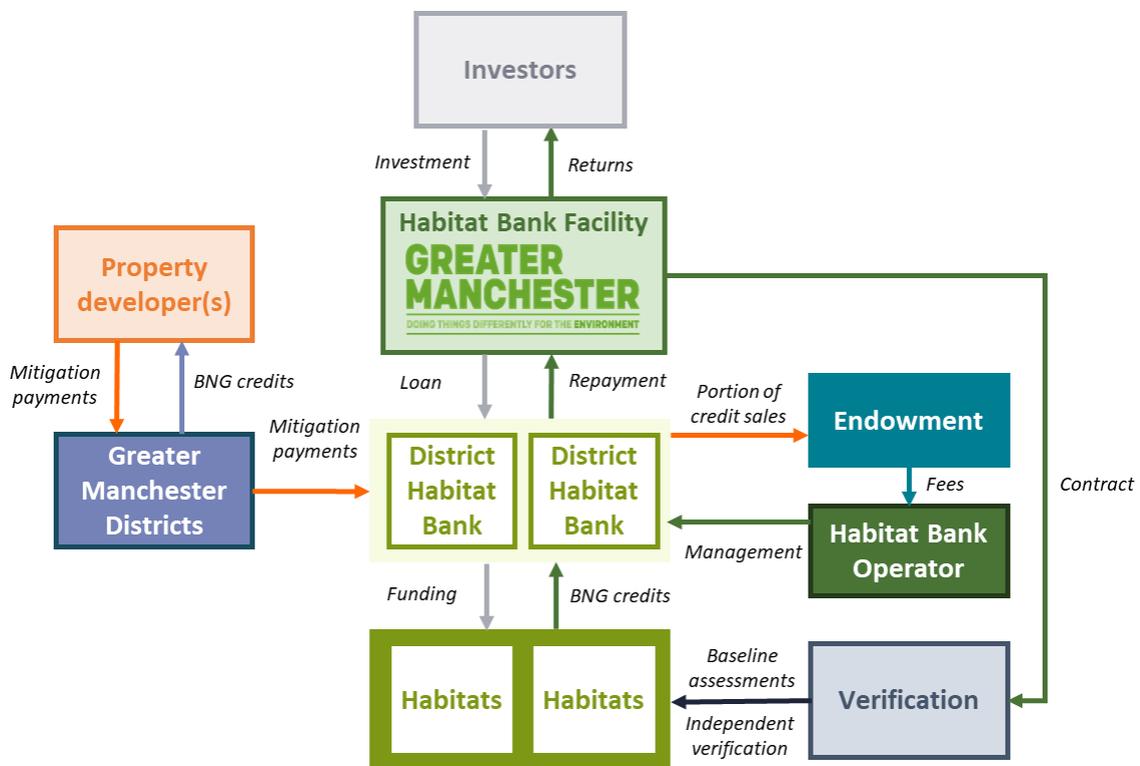


Figure 13. Habitat Bank Facility Structure

How it works?

Third-party finance is raised directly into the Habitat Bank Facility within GMEF, managed by a regulated fund manager. These funds are lent to habitat restoration projects within the city region or a specific district. Local planning authorities provide payments generated by developer contributions through contracted S106, S41 or BNG credit payments. The habitat delivery agents are able to repay this finance from future cash flows received from district planning authorities, which arrange and receive compensation payments from developers, and contractually commit to assign these future income streams to the habitat project. The repayments to the Habitat Bank Facility enable it to provide investors with a return and cover the costs of the facility.

The centralised facility approach allows multiple Habitat Bank operators (including environmental NGOs, local planning authorities and developers) to provide habitat creation, restoration and maintenance services for a variety of sites across the city region. The Habitat Bank Facility will contract an independent evaluator to conduct initial baseline assessments and perform ongoing verification of project outcomes, enabling smaller projects to access operational efficiencies. A portion of funds from the sale of BNG credits is diverted towards an endowment fund to support ongoing maintenance costs for the Habitat Bank operators.

Benefits of a Greater Manchester Habitat Bank Facility



Increase access to financing
to enable districts to create and restore strategic habitats, and accelerate the Nature Recovery Network



Streamline Greater Manchester development
by providing developers with high quality “off-the-shelf” offsite BNG through Habitat Banks



Unlock co-funding
for projects with multiple outcomes e.g. flood defence match-funding, stacking carbon income streams



Reduce development and verification costs
by centralising costs across habitat projects in Greater Manchester



Diversify local NGO income sources
thus building delivery capacity and financial sustainability



Support Greater Manchester's position as the BNG pioneer region
demonstrating how to effectively balance economic and environmental objectives

GMEF is seeking to develop and test the funding and delivery model through the implementation of a pilot investment, so that it is ready to deploy at scale once legislation is passed through the planning system.

5. Investment Model Opportunity: Carbon Mitigation Facility

5.1 Opportunity Overview

With the Greater Manchester Mayor’s ambition for the city region to achieve carbon neutrality by 2038 and an increasing corporate focus on carbon reduction efforts, GMCA is in a strong position to develop a Carbon Mitigation Facility to provide funding and support to habitat restoration projects in Greater Manchester that sequester or reduce emissions of carbon. A centralised Carbon Mitigation Facility would allow local project developers to overcome challenges in navigating opaque carbon markets by harnessing increasing corporate and public demand for high-quality, local carbon offsets that can be seen, understood and trusted.

5.2 Introduction to Carbon Offsetting

“Carbon Offset” schemes compensate for carbon dioxide (“CO₂”) and other greenhouse gas (“GHG”) emissions released into the atmosphere through human activity. A “Carbon Credit”, representing one tonne of CO₂, allows emissions to be traded and compensation projects to be funded. Voluntary carbon markets provide revenue opportunities for a range of initiatives that reduce or avoid emissions, including sustainable land use, renewable energy and energy efficiency.

Carbon offsets should only be used where corporates have taken all measures to avoid or minimise their GHG emissions as a priority to maintain the integrity of offsetting markets.

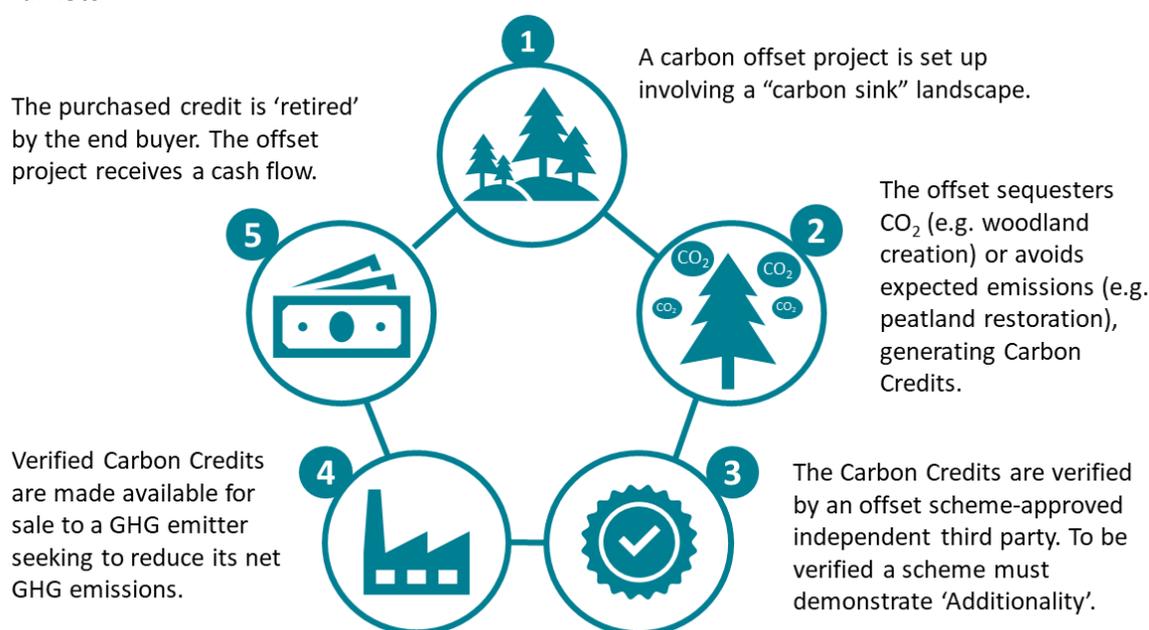


Figure 14. Carbon Offsetting Process

5.3 Global Voluntary Carbon Market Overview

Voluntary offset markets are growing rapidly, driven by an increasing corporate focus on climate risks and commitments to net zero targets. Companies are seeking to offset their unavoidable emissions to achieve decarbonisation goals that have proliferated since the 2015 Paris Agreement, increasing the demand for credible offsets. Credit demand growth is set to continue, driven by private sector-led initiatives and new market regulations, such as the Carbon Offsetting and Reduction Scheme for International Aviation (“CORSIA”) which sets a mandatory emissions cap from the airline industry and requires the purchase of verified offsets in the voluntary markets for emissions above this level.

Globally, 98.4MtCO₂eq of credits were transacted in 2018, more than double the level retired in the previous year.¹⁴ Demand for offsets for NBS, such as through better management of forests and farmland, increased at the fastest rate of all offset project types, by over 264% in the two years to 2019.¹⁵

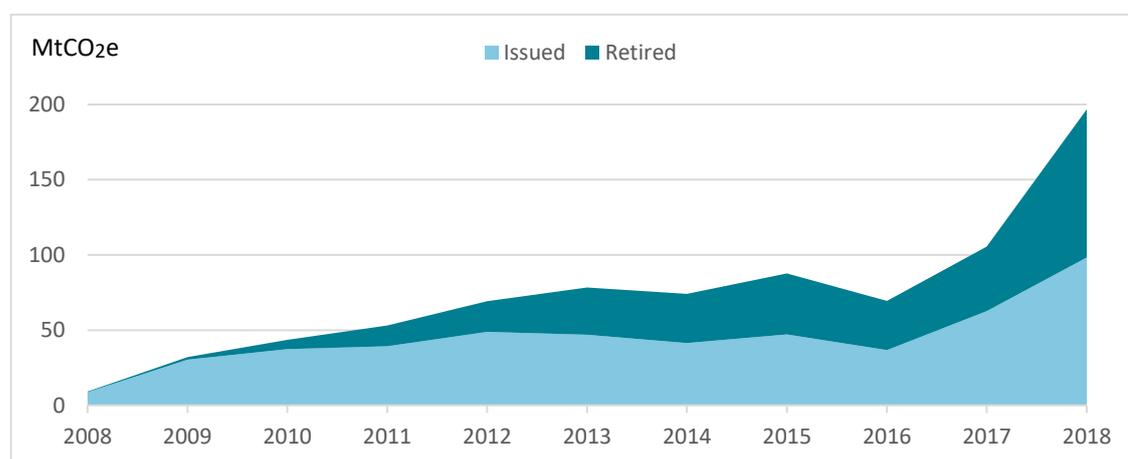


Figure 15. Historical Voluntary Carbon Offset Issuances and Retirements¹⁶

Despite growing demand, the average market-wide price for a voluntary offset was \$3 per tCO₂eq in 2018 and remains low, well below mandatory markets such as the EU European Trading Scheme.¹⁷ Prices are hugely variable based on historical oversupply and quality variations. Buyers are increasingly seeking “charismatic offsets” that offer co-benefits such as biodiversity enhancement and community programmes, and are often willing to pay a premium for such projects.¹⁸ Forecasts signal a future growth in prices, with the World Bank estimating that \$40-80 per tCO₂eq will be the range necessary to achieve the goals of the Paris Agreement.¹⁹

The credibility of voluntary offset markets is open to increased scrutiny as corporate commitments multiply. In September 2020, former Bank of England governor Mark Carney launched a global Taskforce on Scaling Voluntary Carbon Markets to encourage financial flows and rapidly grow the market in a transparent, verifiable and robust manner.²⁰

5.4 UK Carbon Market Opportunity

£44 million was spent on voluntary carbon offsets by UK companies in 2015, mainly in international markets.²¹ In efforts to encourage the development of domestic voluntary schemes, bespoke verification schemes have been set up, notably the Woodland Carbon Code established by the Forestry Commission in 2011 and the Peatland Code launched by International Union for Conservation of Nature in 2015, although challenges remain in applying verification standards across all peatland habitats, such as lowland and fen.

Woodland creation projects in England are also supported by the Government through the Woodland Carbon Guarantee, which provides successful bidders in reverse auctions with a floor price for the sale of future verified carbon credits generated by their planned projects. Three auctions have been held by the end of 2020, with the average price paid per Woodland Carbon Unit across the first two auctions being c.£22 per tonne CO₂e to incentivise the creation of 1,700 hectares of new woodland.²²

The UK market remains at an early stage of development with a limited supply of verified domestic offsets and a lack of supportive market frameworks for habitats beyond woodland. There is significant need for the development of further market infrastructure and implementation of habitat restoration projects that showcase the potential for accessing revenue streams and delivering significant environmental benefits to local communities.

5.5 Greater Manchester Carbon Market Opportunity

With Greater Manchester's ambition to become carbon neutral by 2038, interest from companies in domestic offsets, and a major need for restoration of Greater Manchester's carbon sink landscapes, GMEF is seeking to develop business models based on income generated by voluntary carbon credits.



Corporate appetite for local carbon mitigation is increasing

driven by growing consumer awareness and net zero commitments, providing new funding opportunities.



Greater Manchester policy targets for mandatory net zero developments

introduces the need to aggregate district offset funding and deploy into strategic projects



Locally generated offsets have a major appeal

in providing real, local benefits that can be seen, understood and trusted by corporate buyers.



Local project developers face major challenges

in navigating opaque and volatile voluntary carbon markets and assessing income stacking opportunities.

The Greater Manchester region has huge potential for the restoration of peatland and the creation of woodland habitat that would provide opportunities for carbon sequestration and a range of other benefits. There is an urgent need to establish new funding mechanisms to restore these landscapes to deliver Greater Manchester’s carbon neutrality ambitions.

Peatland²³

17,500 ha

of lowland and upland peatland exists in Greater Manchester, with huge potential to store carbon, reduce flood risk and provide key habitats.

98%

of Greater Manchester’s peatlands have been destroyed and what remains is badly degraded, emitting huge amounts of CO₂.

180,000 t

Potential annual reduction of CO₂eq are available from restoring degraded peatlands across Greater Manchester.

Woodland

1 million

Trees are to be planted by 2024, which will lock up carbon, alleviate air pollution, reduce flood risk and improve biodiversity

Building on existing Greater Manchester work

There is a significant opportunity to build on peatland restoration projects carried out in Greater Manchester to date by providing upfront capital for habitat restoration and securing long-term carbon credit purchase commitments from corporates.

<p>Example: Peatland restoration at Little Woolden Moss</p>		
<p>In 2018, Lancashire Wildlife Trust partnered with Heathrow Airport to support its plans to become carbon neutral by 2020 by investing in peatland restoration. The 70ha restoration project at Little Woolden Moss in Greater Manchester is expected to reduce emissions by 22,427 tCO₂eq over 30 years. This important area of peat bog, historically subject to commercial peat extraction, will deliver biodiversity enhancement, water quality improvements and flood mitigation services.</p>	<p>Habitat</p>	<p>70 ha of degraded peatland at Little Woolden Moss</p>
	<p>Investment size</p>	<p>£94,000 in peatland restoration</p>
	<p>Emissions reduction</p>	<p>22,427 tCO₂eq over 30 years</p>

5.6 Market Engagement and Analysis

Finance Earth engaged with potential corporate carbon buyers in the UK market and conservation NGOs to assess opportunities and funding needs for the development of a city region carbon market.

	Status	Greater Manchester Opportunity
Funding need	<ul style="list-style-type: none"> • A lack of funding is available to facilitate the development and expansion of projects looking to restore key habitats and supply local verified carbon credits. • Carbon funding is insufficient to enable land acquisition and / or incentivise project delivery alone. For example, many areas of lowland peat in Greater Manchester are used as productive agricultural land. 	<ul style="list-style-type: none"> • There is a clear need for a funding mechanism specialising in the monetisation of carbon credits to facilitate natural carbon sink projects. • There is an opportunity to prove benefit stacking alongside BNG, agri-environment grants or other funding sources to improve carbon project viability. • Standardised transaction documents and templates would reduce project transaction costs.
Credit demand	<ul style="list-style-type: none"> • Engagement with national and Greater Manchester-based corporates evidenced significant demand for purchase of local “charismatic” offsets in areas of customers and operations to deliver broader benefits. • A limited supply of suitable UK-based carbon sink projects is available to meet corporate demand. 	<ul style="list-style-type: none"> • A pilot investment would prove the delivery model and encourage further investment in carbon projects. • Broader ecosystem service benefits should be valued and marketed within carbon credits generated from local landscapes.
Verification	<ul style="list-style-type: none"> • A flexible service offering is required regarding funding, verification and brokerage. • Available certification schemes do not apply to habitats beyond woodland and peatland. • Limitations exist for the Peatland Code in terms of cost, suitability for lowland peat habitats, complexity and marketability. 	<ul style="list-style-type: none"> • Priority landscape types should be set based on existing verification methods and codes e.g. Woodland Carbon Code, Peatland Code or government-approved calculations • A simplified verification standard across different habitats using expertise of Soil Association / local ecologists / NGOs should be established in future.

Table 4. Summary of Market Engagement Results

5.7 GMEF's Carbon Mitigation Facility

Engagement with local stakeholders evidenced the opportunity to provide funding and support in monetising carbon credits to developers of natural capital projects in Greater Manchester. Market infrastructure to develop new funding mechanisms will enable restoration of these landscapes and the creation of new habitats to deliver Greater Manchester's carbon ambitions. The Greater Manchester Carbon Mitigation Facility has been designed through discussion with key partners to support greater investment in Greater Manchester's carbon sink landscapes.

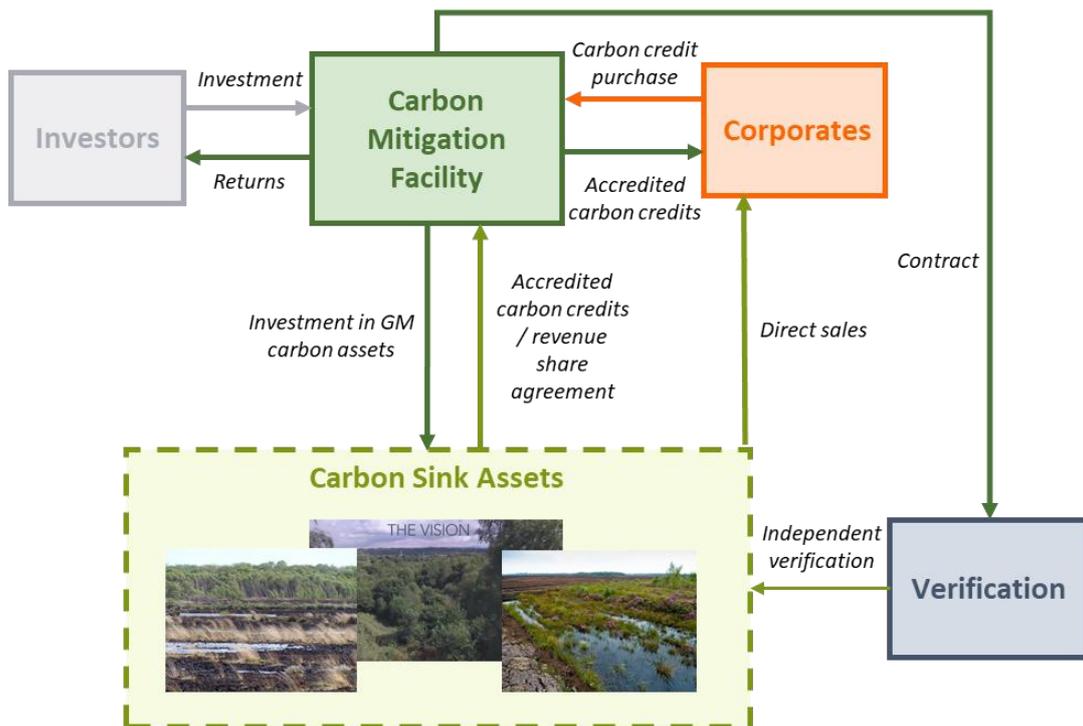


Figure 16. Proposed Carbon Mitigation Facility Structure

How it works?

Investment is raised into a Carbon Mitigation Facility by a regulated Fund Manager. The Carbon Mitigation Fund provides upfront funding to enable local project developers to deliver suitable carbon projects, such as peatland restoration and woodland creation.

The Carbon Mitigation Facility brokers long-term carbon offtake agreements with corporates seeking to offset their residual emissions and deliver local benefits to the residents of Greater Manchester.

Carbon credits are verified by a third-party or in-line with recognised schemes such as the Woodland Carbon Code, Peatland Code or a bespoke verification approach tailored to Greater Manchester's habitats. Carbon credits along with other stacked revenues are assigned by the project owners to the Carbon Mitigation Facility which

is responsible for selling those credits on the market, or, alternatively, a revenue share agreement enables the project developer to sell the credits and return a portion of the revenue to the Carbon Mitigation Facility that ultimately provides its investors with a financial return.

Benefits of a Greater Manchester Carbon Mitigation Facility



Secure offtake agreements with corporates with carbon neutrality targets to generate income streams from corporate offsetting of residual emissions.



Attract private investment into carbon sink projects requiring funding allowing Greater Manchester to meet its carbon neutrality targets through restoring its natural assets.



Reduce set up and verification costs and access higher, more consistent carbon prices by aggregating local projects and centralising marketing activities.



Act as a regional hub for information sharing and capacity building for local organisations developing carbon capture projects.

A proof-of-concept pilot is the next stage to implement and refine the proposed business model. This would build investor and corporate confidence in the approach to unlock further investment in carbon projects.

6. Pilot Investment Implementation

6.1 Delivery of Proof-of-Concept Pilot Investments

Delivery of a pilot natural capital project would provide valuable learnings to enable the Habitat Bank and Carbon Mitigation investment models to be tested, refined and scaled up to support further natural capital projects across the city region.

Table 5 below details the advantages of developing a piloting approach for the priority business models.

Habitat Bank Pilot	Carbon Pilot
	Demonstrates the use of repayable finance
	Provides an opportunity to refine the business model through key learnings before replicating and scaling across Greater Manchester
	Demonstrates multi-partner collaboration, allowing project developers to co-create projects and share learnings to ensure the business model is designed around local needs
	Provides green jobs and sustainable growth
	Provides an opportunity to demonstrate “benefit stacking” by aligning Habitat Bank and Carbon pilots while also exploring additional income generation opportunities
	Establishes Greater Manchester as a pioneer in delivering strategic approaches to nature recovery financing
	<div style="display: flex; justify-content: space-between;"> <div data-bbox="405 1469 884 1581">Allows Greater Manchester to set high standards for the national BNG market</div> <div data-bbox="916 1469 1378 1581">Provides charismatic options for local organisations looking for local offsetting opportunities</div> </div>

Table 5. Advantages of Pilot Investment Approach

6.2 Pilot Investment Opportunity

The GMEF development team engaged with project developer partners across Greater Manchester and the GMEF Advisory Group to identify potential pilot investment projects to support the development of the Habitat Bank and Carbon Mitigation investment models. The collaborative process aimed to identify an existing project in

Greater Manchester with a need for funding for further development and expansion, providing the opportunity to pioneer the use of repayable finance to deliver the project.

A range of opportunities were considered, covering key habitats and specific projects in development across Greater Manchester, with key considerations summarised below:

	Carbon	Habitat Banking
Woodland creation	<ul style="list-style-type: none"> ▲ City of Trees recently carried out strategic mapping for woodland creation to support the development of the Northern Forest initiative.²⁴ ▲ The Woodland Carbon Code is established in the market as a verification standard; the Woodland Carbon Guarantee provides a floor price and guaranteed market for credits. ▼ Project aggregation is needed to reach sufficient scale to attract private investment. ▼ The landowner engagement process being carried out to identify woodland creation projects is at a relatively early stage. 	<ul style="list-style-type: none"> ▼ The opportunity to deliver significant BNG uplift through new woodland creation in urban areas is limited, restricting the opportunity to test benefits stacking.
Peatland restoration	<ul style="list-style-type: none"> ▲ A significant opportunity exists for large-scale peatland restoration in Greater Manchester, with areas substantially degraded by heavy industries such as coal mining, peat extraction and steel production. ▲ Existing work is underway to support restoration of both upland peatland (e.g. Moors for the Future project led by Peak District National Park²⁵) and lowland peatland (e.g. Carbon Landscape project led by Lancashire Wildlife Trust²⁶) with funding gaps to deliver benefits at scale. ▲ There is an opportunity to prove benefit stacking by aligning carbon and BNG pilot projects to enable investment to be raised at an appropriate scale to ensure a robust business case and attract strong investor appetite. 	
	<ul style="list-style-type: none"> ▼ The Peatland Code is difficult to apply to lowland peatland habitats. 	<ul style="list-style-type: none"> ▲ Peatland areas are established as a “Biodiversity Heartland” by Salford City Council and are an important ecological

	<ul style="list-style-type: none"> ▲ There is an opportunity to test the application of the Peatland Code or alternative evidence-led approach to satisfy the domestic carbon market. 	<p>network within the Great Manchester Wetlands Nature Improvement Area – restoration offers a significant opportunity for biodiversity enhancement.</p>
Other habitat-types	<ul style="list-style-type: none"> ▼ Verification codes or metrics are not yet in place for other landscapes. ▼ There is limited supply of habitats with significant carbon sequestration potential beyond woodland and peatland. 	<ul style="list-style-type: none"> ▲ Defra recently selected Greater Manchester to establish Local Nature Recovery Strategy pilot studies to map its most valuable sites and habitats for wildlife – this will identify key areas where nature can be restored to achieve BNG. ▼ Alternative funding models are needed for urban green infrastructure projects with limited BNG uplift potential, for example, sustainable drainage systems (“SuDS”), city parks and natural flood management projects.

Table 6. Pilot Project Opportunities

The stakeholder engagement process resulted in peatland restoration being selected as the preferred pilot investment opportunity due to the opportunity to restore one of the city region’s most valuable habitats, while testing the model for stacking BNG and carbon business models.

A collaborative partnership formed between Peel Land and Property Group (“Peel”), Salford City Council, Lancashire Wildlife Trust, GMEU, GMCA and Finance Earth to develop a pilot habitat restoration project in an area of Chat Moss, the ‘jewel in the crown’ of peatland habitat in Greater Manchester.

The partnership, led by Peel as the landowner, applied to Natural England’s BNG Credits Scheme to gain ecological consultancy support and influence the design of BNG policy. The partnership was recently selected as one of nine from almost ninety applications across England, and work is now underway to assess the potential to deliver BNG credits from the site. The pilot area is 139 hectares, with the opportunity for learnings to be applied to the wider 2,082-hectare Chat Moss area (c.50% owned by Peel) and the peat-based habitats beyond.

While the landowner is not under an obligation to deliver a habitat intervention on the back of the pilot process, the pilot site offers a significant opportunity to expand the partnership’s understanding of how best to utilise BNG policy to create multiple habitats and accelerate natural capital investment across GM. Implementation of the habitat restoration works is reliant on the development of a robust investment case through the process.

Chat Moss Restoration Opportunity

In the UK, peat covers 12% of the total land area and stores at least 3 gigatons of CO₂eq, which is equivalent to over 20 years of all UK greenhouse gas (“GHG”) emissions.²⁷ Modelling carried out by GMCA suggests that 50-75% of peatland in the city region will need to be restored in order to achieve Greater Manchester’s target to reach carbon neutrality by 2038.²⁸



Chat Moss is the largest remaining fragment of lowland peatland within Greater Manchester. It is currently a huge GHG emitter, having experienced severe degradation over the last few centuries through intensive agriculture, industrial pollution and peat extraction.

In 2020, Defra selected a site on Chat Moss as the lowland raised bog for carbon emission analysis, which highlighted:²⁹

5 million tonnes CO₂eq storage potential of Chat Moss

80,000 tonnes Potential annual CO₂eq emissions reductions with effective restoration of Chat Moss

Chat Moss presents a large-scale opportunity to increase the size of existing habitats, create new habitats and link them together – covering the most important principles of a Nature Recovery Network. Demonstration pilots are critical to evidence the opportunity to avoid significant emissions through peatland restoration to contribute to the city region’s carbon reduction targets.

Strategic local and national priorities to restore Chat Moss

Local Policy Support

Salford City Council:

- Has established Chat Moss as a “Biodiversity Heartland”
- Aims to enhance local biodiversity through lowland raised bog restoration

The Chat Moss area:

- forms part of a wider ecological network within the Greater Manchester Wetlands Nature Improvement Area

National Policy Support

Natural England:

- Recently selected a site on Chat Moss as a BNG Credits Scheme pilot project to support the design of BNG policy and payment structures to fund habitat provision.
- Is providing resources to develop BNG calculations, management plans and governance for habitat provision

GMEF Opportunity

Chat Moss represents an opportunity to:

- Test approaches to fund Greater Manchester’s Nature Recovery Network through ‘stacking’ carbon with BNG credits; and
- Secure private investment into peatland restoration based on blended income streams.

Targeted learnings from pilot

The design of a pilot investment at Chat Moss would evidence the opportunity to restore Greater Manchester’s hugely valuable peatland habitat, whilst proving the BNG and carbon investment models to enable scale up. A peatland-based pilot investment would build on Salford’s BNG ambitions and Lancashire Wildlife Trust’s peatland carbon funding experience to provide the critical evidence base to scale up the Habitat Bank and Carbon Mitigation investment models.

The objective of the pilot process includes an understanding of:

- The process to register/accredit and develop a habitat for issuance of BNG credits;
- Technical assessment of site suitability for issuance of BNG credits, including understanding of applying the Defra biodiversity metric;
- The opportunity to optimise BNG credit issuance for a given site and deliver maximum benefits from a site.

- The process and verification requirements to practically “stack” carbon credits with BNG credits and/or other income streams to enhance benefits that can be delivered from the site;
- The business model and financing options to support habitat delivery using forecast BNG and carbon credit sales;
- The delivery process to enable the model to be scaled up to deliver habitat restoration and creation projects across Greater Manchester.

Other potential pilot sites are currently being explored that could also be developed to add to the evidence base and support the scale up of the investment facilities. In particular, Finance Earth is working closely with Salford City Council and GMEU to identify targeted opportunities to deliver an urban and sub-urban Nature Recovery Network in the district through BNG investment that engages and provides benefits to local communities. Key opportunities include:

- Improving the quality of current sites by better habitat management, through peatland restoration, managing existing woodlands, improving parks management and river corridors;
- Reducing pressures on wildlife by enhancing connections between habitat sites; and
- Creating new habitats including woodland, ponds and species-rich grassland.

6.4 Proposed Pilot Investment Structure

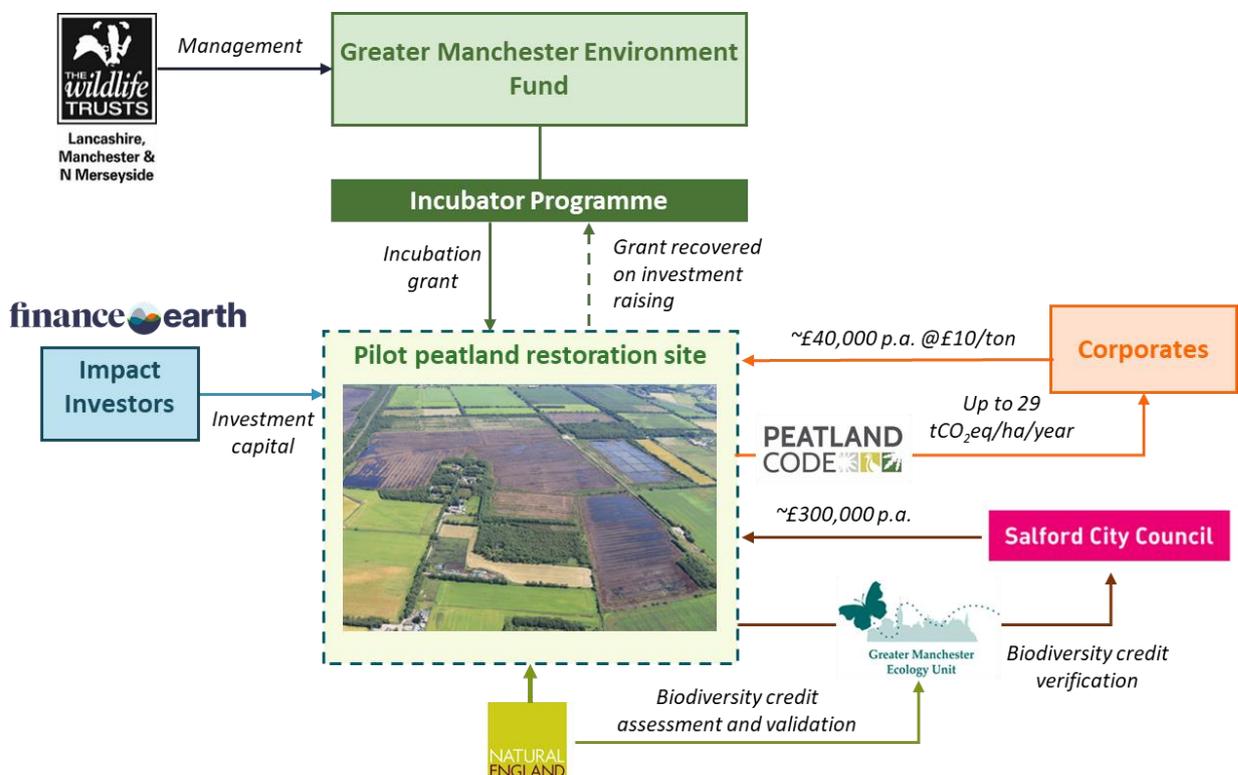


Figure 17: Indicative Pilot Investment Structure

Support is needed in the form of a revolving incubation grant to provide partner capacity to develop and implement the pilot investment. This will provide resources and technical expertise for partners to develop the Habitat Bank and Carbon business models, and structure and raise third-party investment to deliver the restoration works. The incubation grant will aim to be recovered through the investment secured into the pilot projects to be used to implement further pilot investments.

The Natural England Biodiversity Credits Scheme pilot programme is providing support to show how BNG credits can be generated from a pilot peatland site and develop the habitat management plan to deliver biodiversity outcomes. Potential CO₂ emissions reduction from restoration activities will be assessed through an experienced ecologist, such as the Soil Association.

Finance Earth will be responsible for designing and building the financial model and investment case, advising on the revenue contract agreements for both BNG and carbon credit sales and engaging with investors to mobilise investment to deliver the pilot project.

Indicative estimates suggest that the following annual income could be achieved to mobilise private investment:

- BNG income: up to £300,000 per year projected based on the local development pipeline and priorities to deliver BNG in Salford (based on an indicative BNG unit credit price of £12,000 established through discussions with GMEU); and
- Carbon credit income: c.£40,000 per year based on an estimated 29tCO₂eq annual sequestration per ha, assuming a 140 hectare site with carbon credits sold at £10 per tCO₂eq³⁰.

The level of income generation will be limited by the biodiversity units generated by the site and its CO₂ emissions reduction performance, as well as the prices per credit generated.

Ongoing monitoring and evaluation of the biodiversity outcomes achieved from the site would be performed by an ecological expert, such as GMEU, and the carbon units generated would be assessed through a recognised accreditation scheme or a bespoke verification approach suitable to market demand.

Delivery Team Partner	Role	Responsibilities
Peel Land and Property 	Landowner and property developer	<ul style="list-style-type: none"> Habitat management plan development Contract negotiation Governance arrangements
Salford City Council 	Local Planning Authority	<ul style="list-style-type: none"> Contract preparation Governance arrangements Sharing learnings with Greater Manchester local planning authorities
Wigan City Council 	Local Planning Authority	<ul style="list-style-type: none"> Contract preparation Governance arrangements Sharing learnings with Greater Manchester local planning authorities
Lancashire Wildlife Trust 	GMEF Fund Manager and local conservation NGO	<ul style="list-style-type: none"> Programme oversight Habitat management plan Carbon market engagement, promotion and negotiation
Finance Earth 	Specialist financial advisor	<ul style="list-style-type: none"> Structuring and execution of revenue agreements Financial model and capital structuring Advice on contracting and governance arrangements Investor engagement and fundraising Model scale up and sharing learnings
Natural England 	Regulatory body	<ul style="list-style-type: none"> BNG credit assessment and validation Habitat management plan Governance for monitoring and evaluation Policy development
GMEU 	Specialist ecological advisor	<ul style="list-style-type: none"> Ecological surveys Habitat management plan approval Monitoring and evaluation
GMCA 	GMEF Sponsor	<ul style="list-style-type: none"> Stakeholder engagement Model scale up and sharing learnings

Table 7. Proposed Pilot Investment Project Partners

6.5 Pilot Implementation and Scale Up Plan

Learnings provided during a pilot investment process will be used to scale up the Habitat Bank and Carbon investment models to provide additional funding for habitat restoration projects across Greater Manchester. Pilot implementation is dependent on securing development funding and establishing a robust investment case through the pilot design process.

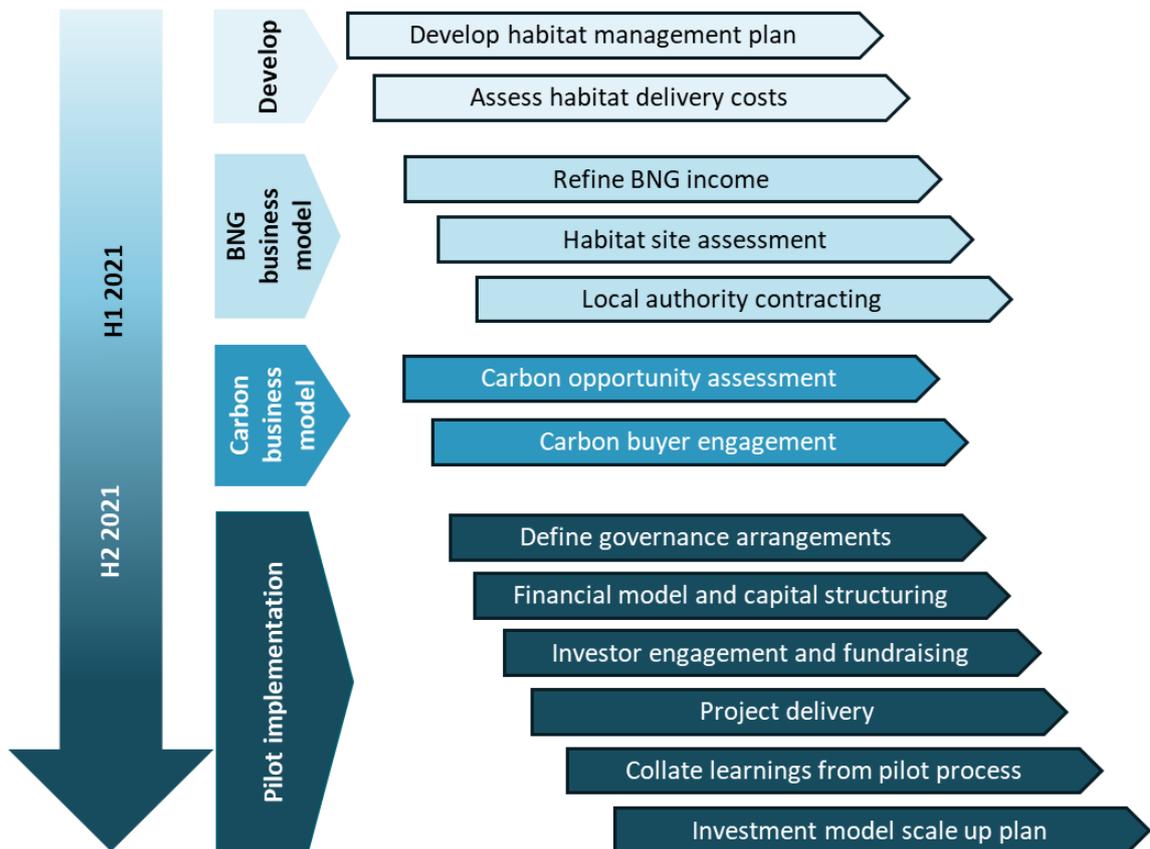


Figure 18. Indicative Investment Pilot Delivery Process

6.5. Investment Model Scale Up

The ultimate ambition for the pilot investment is to prove the Habitat Bank and Carbon investment model and refine the approach before expanding investment to restore landscapes and create new habitats across Greater Manchester. In adopting a collaborative approach involving a range of Greater Manchester delivery partners, the pilot aims to share learnings, build project partner capacity and ensure the ultimate investment Facility is designed around local needs to support the delivery of Greater Manchester's Nature Recovery Network.

The proof-of-concept pilot investment aims to unlock millions of pounds of additional private investment to support Greater Manchester’s natural capital assets, including further peatland restoration across Chat Moss and beyond, upland peatland restoration in the Peak District National Park and the creation of the Northern Forest.

The pilot may demonstrate the opportunity to align and potentially combine the Habitat Bank and Carbon investment models based on the opportunity for stacked income streams. A combined “Nature Recovery Investment Fund” would enable greater sources of investment to be delivered across projects in order to maximise efficiencies and benefits that can be achieved across landscapes.

A revolving incubation grant is requested to provide partner capacity to develop the pilot project. This is intended to be recoverable from the follow-on investment secured once the pilot project is investment-ready to create legacy funding for further pilot development.

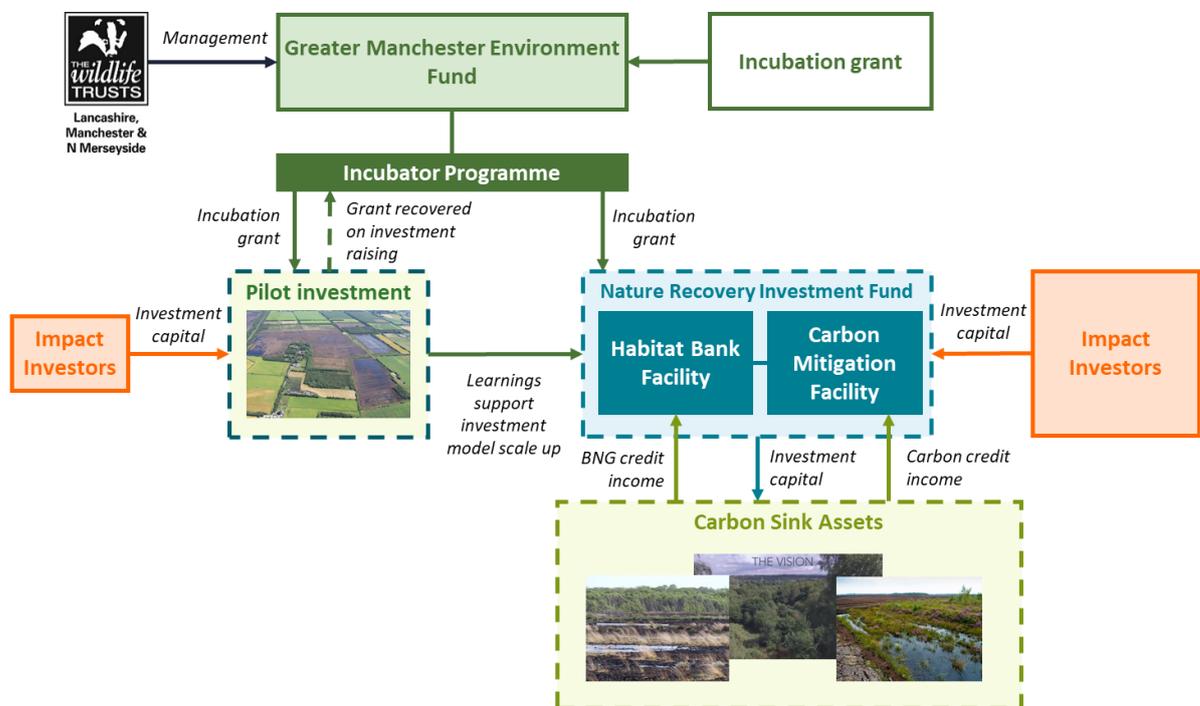


Figure 19. Investment Model Scale Up Opportunity

6.7. Medium-Term Investment Opportunities

Over the medium-term, further natural capital investment models are expected to become viable and benefit the Greater Manchester region. GMEF can play an important role in providing a governance structure for these models and topping up the revolving grant facility that will be used to bring them to market-readiness and leverage external sources of funding.

Preliminary work to implement the medium-term investment funds and restricted funds outlined in the above fund structure is already underway. GMEF provides a vehicle to integrate these programmes as they develop further to attract new sources of private investment within dedicated facilities and support the delivery of a broader range of Greater Manchester's environmental objectives.

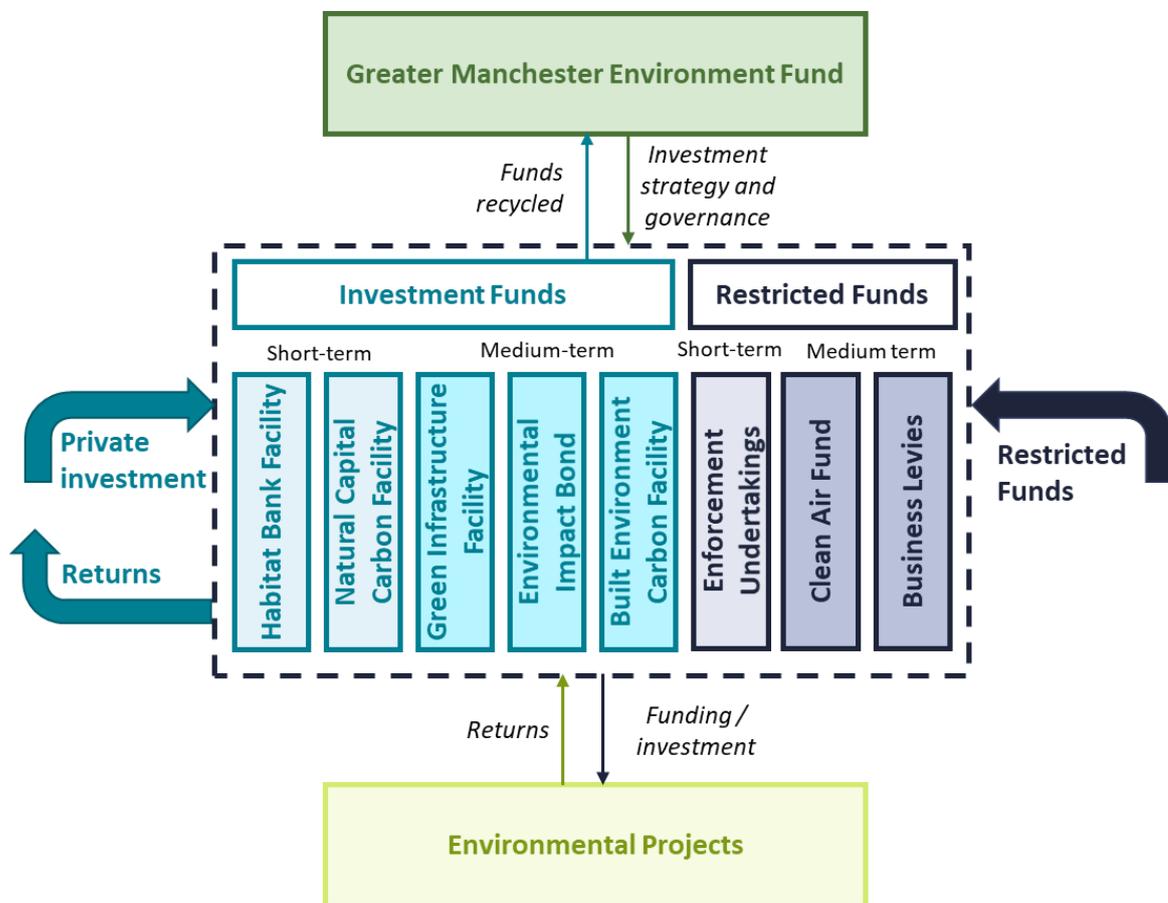


Figure 20. Opportunity for GMEF Expansion

The key work programmes already in development in Greater Manchester with plans to create and launch new investment funds are outlined below:

Example	Description	Timeframes	Scale
<p>Sustainable Drainage Systems</p> 	<p>Mechanisms for attracting private investment into SuDS to reduce surface water flooding risks are being explored through the EU-funded IGNITION programme. This programme could be integrated within the GMEF governance umbrella to develop new ways to attract repayable finance into urban green infrastructure.</p>	1-2 years	£10 million +
<p>Environmental Impact Bonds</p> 	<p>In the last five years, the US has pioneered Environmental Impact Bonds, which are financing mechanisms designed to transfer performance risk of green infrastructure interventions from water utilities and local authorities to impact investors, with investment returns conditional on outcomes delivered. This has the potential to unlock a large new asset class to deliver Greater Manchester’s green infrastructure priorities (e.g. SuDS, constructed wetlands, peatland restoration, river course management).</p>	2-3 years	£20 million +
<p>Built Environment Carbon Facility</p> 	<p>The Greater Manchester Spatial Framework, currently out for consultation, includes an expectation that new development will be net zero carbon from 2028, with residual emissions offset. If enacted, this could generate millions of pounds of funding from developers unable to meet minimum local building regulation standards from 2025 onwards to apply to decarbonizing the built environment and transport sectors. Certain councils are seeking to trial net zero development regulations in advance of city region-wide policy, and need a mechanism to deliver offset funding from developments.</p>	4-5 years	£30m-£100m

Table 8. Example Medium Term Investment Funds

6.6 GMEF Project Pipeline

A key function of GMEF is to form partnerships with nature restoration delivery bodies across Greater Manchester to align priorities and ensure funding is allocated strategically.

The need for a coordinated, wide scale approach to natural capital investment reaching every part of Greater Manchester, is more pressing than ever, with the scale of threat to the natural environment, the economic strain from the Covid-19 pandemic and the consequent impact on health.



Responding to the challenge, GMEF formed a partnership of key environmental charities to strengthen and build collaborative delivery arrangements and coordinate delivery of prioritised outputs.

This GMEF partnership has recently been successful in securing a £1.8 million funding commitment from Defra’s Green Recovery Challenge Fund to support 11 local partners to deliver the Greater Manchester Local Nature Recovery Strategy through a portfolio of collaborative projects.

This shovel-ready project portfolio has been established through a comprehensive engagement process with the major natural capital project delivery organisations across Greater Manchester, evidencing the potential for strong cross-sectoral collaboration through GMEF.

Projects to be delivered through the programme include:

- Greater Manchester Wetlands – rewetting bog and planting keystone species to support reintroductions of lost species such as large heath butterfly;
- Upland peat at Dovestone – delivering critically important restoration work of moorland habitats in Oldham leading to improved biodiversity value for priority species and delivering vital ecosystem services such as reduced carbon emissions and flood risk;
- Rivers and canals – improving Greater Manchester’s natural heritage across four waterbodies to improve water quality and create habitat for species;
- Phillips Park – kickstarting restoration of its woodland, grassland and wetland habitats, and launching new community engagement programmes;
- Existing woodlands – increasing the quality, diversity and connectivity of deciduous woodland to save priority species;

- Northern Roots – creating new wetlands, woodland and management of existing meadow habitat to improve a long-neglected landscape corridor;
- Wild Stockport – boosting wildlife friendly gardens and creating urban stepping stones.

The much-needed support provided through the Green Recovery Challenge Fund will come to an end in March 2022. GMEF is seeking to develop investment models and leverage additional funding to ensure it can support the delivery of Greater Manchester’s environmental priorities over the long term.

Once the Habitat Banking and Carbon investment models have been proven through the pilot process, there is significant opportunity to expand levels of investment to support the long-term success of environmental projects across Greater Manchester.

These pipeline projects evidence the opportunity to develop further investment models supporting other natural capital outcomes, such as water quality and natural flood management, so they can begin to tap into private capital sources for sustainable, long term financing rather than being solely reliant on short-term public and philanthropic funding.

7. GMEF Delivery

7.1 Governance Structure

GMEF is structured as a charitable company limited by guarantee using a similar model as the Lancashire Environment Fund, which Lancashire Wildlife Trust designed and has managed effectively over the last 20 years, deploying over £25 million of grants.

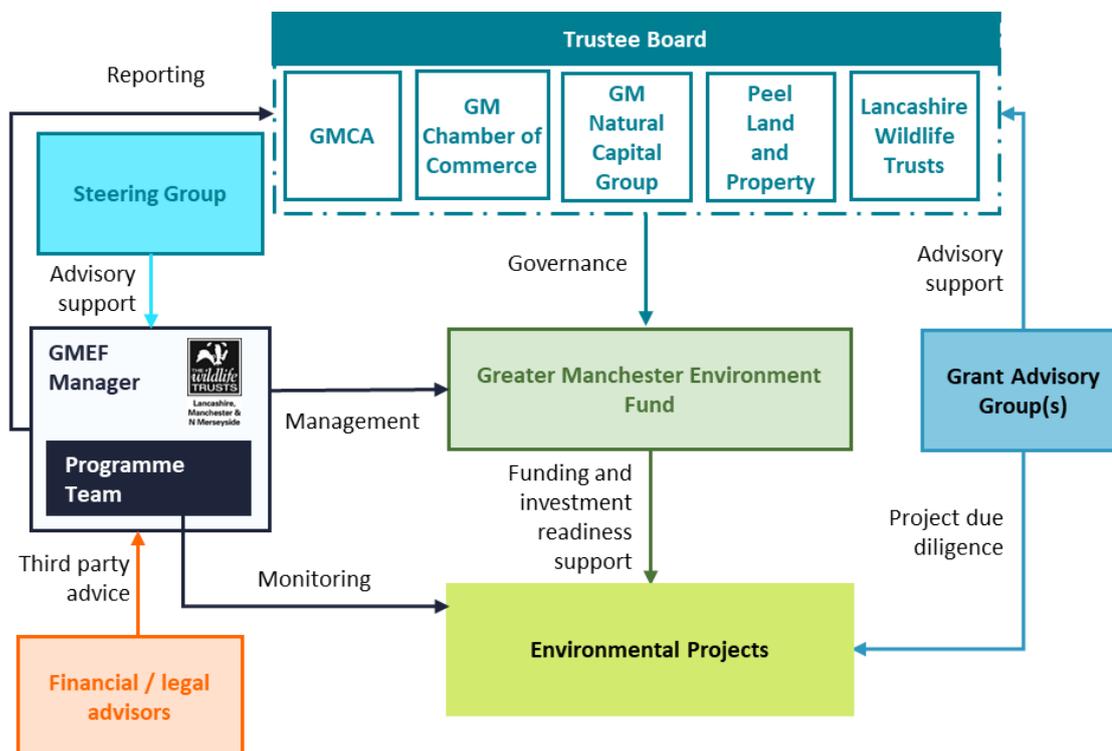


Figure 21. GMEF Governance Structure

As the Fund Manager for GMEF, Lancashire Wildlife Trust's experienced Programme Team manages day-to-day operations, including stakeholder outreach and project due diligence, delivery and compliance.

An independent Board of Trustees is made up of leading representatives from prominent local organisations and provides strong governance, oversight and a wealth of diverse knowledge and expertise to ensure GMEF delivers on its objectives. The Board of Trustees the following representatives:

- **GMCA** – Mark Atherton, Head of Environment;
- **Greater Manchester Natural Capital Group** – Anne Selby, Chair;
- **Greater Manchester Chamber of Commerce** – Clive Memmott, CEO;
- **Lancashire Wildlife Trust** – Tom Burditt, CEO; and
- **Peel Land and Property** – Anthony Hatton, Director.

An independent project Steering Group, made up of the current GMEF Advisory Group members, provides strategic oversight and potential access to funding streams. Grant

Advisory Groups support the Trustee Board with project due diligence and verification for specific funding streams. Specialist financial and legal experts will be brought in to support as and when required to implement new investment sub-funds.

7.2 GMEF Programme Team

Lancashire Wildlife Trust’s Senior Management Team collectively has over 120 years’ industry experience with complementary skills required to manage the day-to-day operations for GMEF.

Daveen Wallis, Director of Nature at Lancashire Wildlife Trust, will take overall responsibility for day-to-day management, supported by dedicated Grants Officers and Senior Management input. Biographies of key team members are provided in the Appendix.

GMEF Programme Team		
Mick Weston Director of Development	Tom Burditt Chief Executive Officer	Tim Mitcham Director of Conservation
Andy Rowlett Fund Manager	Daveen Wallis Grants Programme Manager	Joanne Anderson Finance Manager
Alan Wright Communications Officer	TBD Grants Officer(s)	TBD Finance Assistant(s)

Figure 22: GMEF Programme Team – Lancashire Wildlife Trust

7.3 GMEF Governance Representation

GMEF will be governed by a Board of independent trustees with representation from Greater Manchester’s environmental leaders. Trustees will be supported by GMEF’s Steering Group, which has been instrumental in the establishment of GMEF, advising on strategic direction and setting immediate and long-term priorities. Grant Advisory Groups will provide tailored advice to Lancashire Wildlife Trust’s Programme Management team on project due diligence for specific funding streams. Biographies of governance representatives are provided in the Appendix.

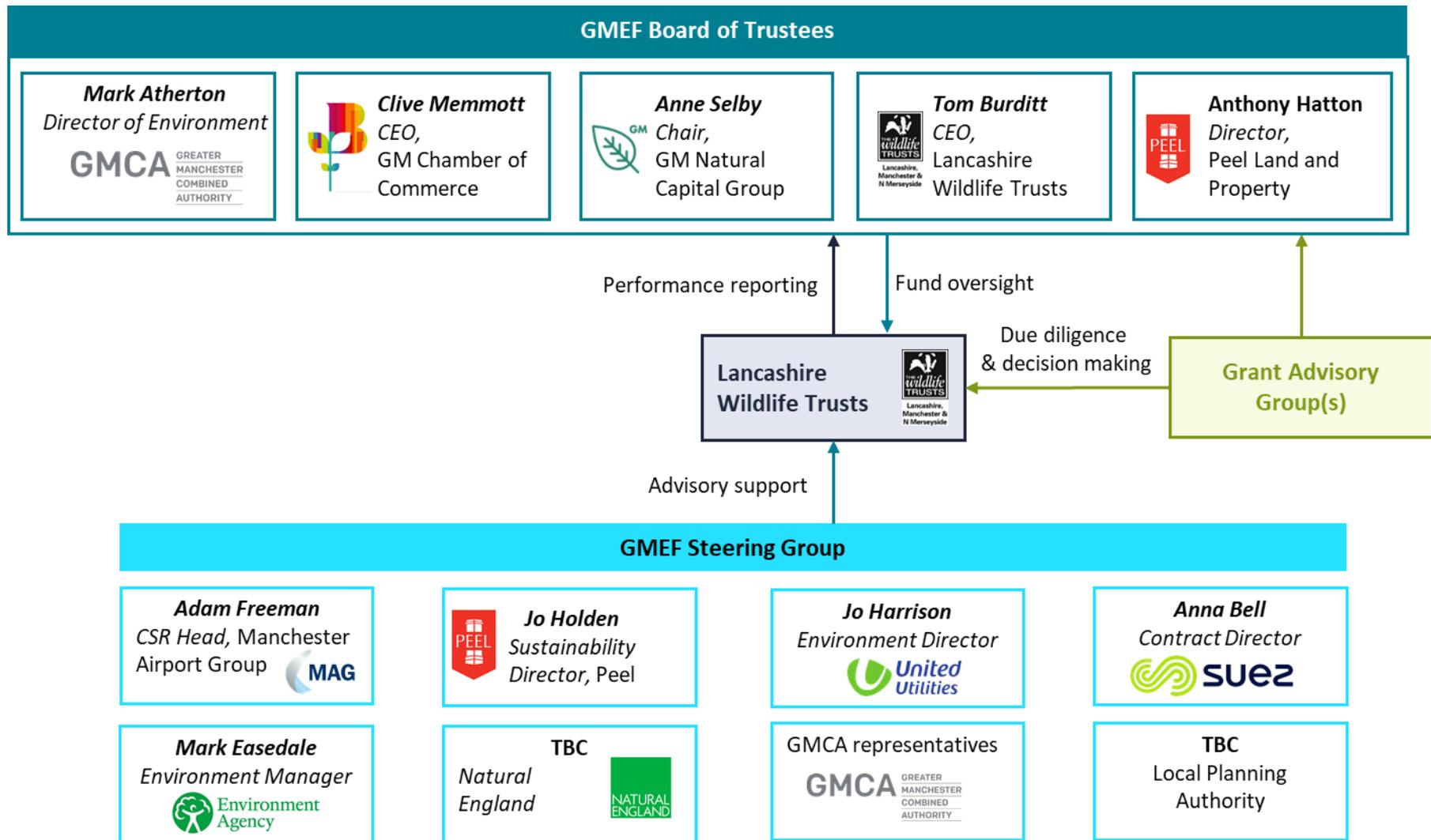


Figure 23: GMEF Governance Representatives

7.4 Grant Delivery Process

Lancashire Wildlife Trust will be responsible for stakeholder engagement and outreach, direct liaison with strategic partners, project due diligence and managing funding agreements and monitoring and communication.

Initial outreach	Short list proposals	Due diligence	Grant Advisory Group decision	Funding delivery	Monitoring and communications
Process					
<ul style="list-style-type: none"> Stakeholder engagement and outreach with networks and partners through events, publicity media and known networks Receive initial expressions of interest 	<ul style="list-style-type: none"> Issue application form with short set of questions / checklist Receive completed form Determine applicant eligibility Short list applicants 	<ul style="list-style-type: none"> Receive detailed proposal Assess applicants against fund criteria Meetings with prospective grantees Prepare summary for Grant Advisory Group with recommendation 	<ul style="list-style-type: none"> Grant Advisory Group Board meeting Grant Advisory Group makes funding decision 	<ul style="list-style-type: none"> Issue funding offer letter detailing outcome and terms and conditions Execute contract with grantee Drawdown and transfer funds 	<ul style="list-style-type: none"> Monitor delivery and compliance of projects Prepare case studies and impact report Social media, website, video diaries, poster campaign Annual celebration event and awards
Responsibility					
<ul style="list-style-type: none"> Fund manager Grant Advisory Group / Trustee Board networks Prospective grantees 	<ul style="list-style-type: none"> Fund manager Prospective grantees 	<ul style="list-style-type: none"> Fund manager Prospective grantees 	<ul style="list-style-type: none"> Fund manager Grant Advisory Group 	<ul style="list-style-type: none"> Fund Manager Grantee 	<ul style="list-style-type: none"> Fund Manager Grantee

Figure 24. Grant Delivery Process

8. Impact Assessment and Reporting

8.1.1 GMEF Impact Monitoring

GMEF is targeting impact outcomes that support the achievement of its mission for “an independent self-sustaining fund established to support the delivery of Greater Manchester’s ambitions to achieve a clean, carbon-neutral, climate resilient city region with a thriving natural environment”. The impact outcomes have been based on the objectives of Greater Manchester’s 5YEP.

Impact outcome	Indicator	Indicative Targets		
		Short term – 1 year	Medium term – 3 years	Long term – 5 years
<ul style="list-style-type: none"> Manage land sustainably 	<ul style="list-style-type: none"> Ha land restored CO₂eq tonnes sequestered 	<ul style="list-style-type: none"> 250 ha habitat restoration 	<ul style="list-style-type: none"> 1,000 ha habitat restoration 	<ul style="list-style-type: none"> 2,000 ha habitat restoration
<ul style="list-style-type: none"> Improve the water environment 	<ul style="list-style-type: none"> Ha land restored to enhance water bodies 	<ul style="list-style-type: none"> 250 ha land restored for water bodies 	<ul style="list-style-type: none"> 1,000 ha land restored for water bodies 	<ul style="list-style-type: none"> 2,000 ha land restored for water bodies
<ul style="list-style-type: none"> Achieve net gain in biodiversity 	<ul style="list-style-type: none"> BNG unit uplift Ha of Nature Recovery Network 	<ul style="list-style-type: none"> 10% BNG site delivered in single district (150 ha) 	<ul style="list-style-type: none"> Support delivery of BNG across 3 districts (500 ha) 	<ul style="list-style-type: none"> BNG investment scaled up to deliver the local Nature Recovery Network
<ul style="list-style-type: none"> Increase investment in the natural environment 	<ul style="list-style-type: none"> Collaborative funding bids secured Private investment raised Restricted / unrestricted income secured 	<ul style="list-style-type: none"> £500k private investment £2 million collaborative funding bids 	<ul style="list-style-type: none"> £1 million private investment £2 million other restricted / unrestricted income 	<ul style="list-style-type: none"> £2.5 million private investment GMEF is financially sustainable - income covers delivery costs
<ul style="list-style-type: none"> Increase natural environment engagement 	<ul style="list-style-type: none"> Number of volunteers / community groups / people engaged Corporates / landowners engaged Development of skills and capabilities Job creation and retention Economic benefits 	<ul style="list-style-type: none"> 2,000 volunteers / people connect with nature 10 local organisations involved in pilot investment 	<ul style="list-style-type: none"> 4,000 volunteers / people connect with nature 20 local organisations involved in pilot investment / knowledge transfer workshops 	<ul style="list-style-type: none"> 8,000 volunteers / people connect with nature 40 local organisations involved in pilot investment / knowledge transfer workshops

Table 9. GMEF Impact Outcomes

9. Development Process and Budgets

9.1 Pilot Programme Budget

GMEF is seeking a repayable grant of £175,000 to support the design and implementation of the aligned Habitat Bank and Carbon investment pilot to enable it to become investment-ready over the next 18 months. This is intended to be recoverable to create legacy funding through an Incubation Programme for further pilot investments to develop other natural capital business models in the region.

GMEF Incubation Programme

The pilot programme is intended to provide a proof-of-concept investment to allow the Habitat Bank and Carbon investment models to be scaled up to deliver greater investment into the city region's natural capital assets. The pilot programme can be run on a standalone basis as a separate cost centre.

The initial grant is intended to be recoverable from the realised follow-on investment into the pilot project once it is brought to investment-readiness, to create legacy funding for a long-term Incubation Programme to deliver further pilot investments. Recovery of the repayable grant depends on the success of the pilot programme and its subsequent fundraising.

Role	Budget (£'000)	Key responsibilities
Financial advisor	90	<ul style="list-style-type: none"> BNG and Carbon business model development Financial model and capital structuring Investor engagement and fundraising Investment model scale up delivery plan
Carbon assessment	10	<ul style="list-style-type: none"> Emissions reductions projections Carbon verification methodology
GMEF Manager	20	<ul style="list-style-type: none"> Carbon market engagement Stakeholder engagement Investment model scale up delivery plan
Ecologist	10	<ul style="list-style-type: none"> Habitat management plan BNG unit calculations and costings Monitoring and reporting
Legal and other fees	20	<ul style="list-style-type: none"> Legal structuring, documentation and related costs
Net budget total	150	
VAT	25	
Grand total	175	<i>Revolving grant to support pilot incubation workstreams to 31 March 2022</i>

Table 10. Pilot Programme Budget

9.2 Scale Up Funding Need

Further pump priming grants would bring in vital development capacity to attract a broader range of funding streams to accelerate GMEF growth and increase the impact it can deliver.

LWT with the support of Finance Earth and GMCA has already secured key funding commitments for GMEF to enable it to begin to deliver on its mission and cover core costs, including:

- £1.8 million from Defra’s Green Recovery Challenge Fund to support 11 local partners to deliver the GM Local Nature Recovery Strategy through a portfolio of collaborative projects delivered to March 2022
- £200,000 from SUEZ Community Fund to deliver grants into environmental projects for the benefit of GM communities.

While these secured funding sources cover the operational costs to deliver specific programmes of environmental investment, further pump-priming grants are needed to:

- Bring in much-needed capacity to build on this success by leveraging identified additional funding streams to meet GM’s long-term environmental objectives
- Put GMEF onto a sustainable long term footing to continue its mission and fulfil its potential to be the UK’s leading regional environmental impact vehicle and a blueprint for other regions to follow.

With critical early stage report, funding levels are projected to scale to £2.9 million in the next 2 years and £6.5 million over 5 years.

Scale Up Funding Need	Responsible party	Costs (£'000) (incl. VAT)
Corporate funding streams (e.g. CSR, carbon market, waste levies)	GMEF Manager*	75
Enforcement undertakings		15
Local authority funding		10
Clean Air Fund distribution		10
Project management and other costs		10
Further investment model development	Financial Advisor	30
Total		150

Table 11. Scale Up Funding Budget

**Includes staff costs (for a Programme Manager, Communication Officer and Lancashire Wildlife Trust Senior Management support) and associated office costs to 31 March 2022*

Further pump priming grants would allow GMEF to be positioned to access new long term streams that will enable it to develop into a hugely impactful regional vehicle.

Funding sources (£'000)	2 Year Total	5-Year Total	Confidence
Suez Community Fund	400	1,000	High - committed
Green Recovery Challenge Fund	1,800	1,800	High - committed
Corporate donations	100	900	Medium – strong local appetite from initial engagement
Clean air fund	-	420	Low – early development stage
Enforcement undertakings	60	300	Medium – historical analysis; uncertainty of triggering events in future
Local authorities	8	68	Medium – high engagement; but local budget pressures
Individual giving	-	60	Low – resource intensive to secure
Private repayable investment funds	500	2,000	Medium – strong business model for BNG and carbon with other investment funds already in development
Total	2,868	6,548	

Table 12. Projected GMEF Funding Raised

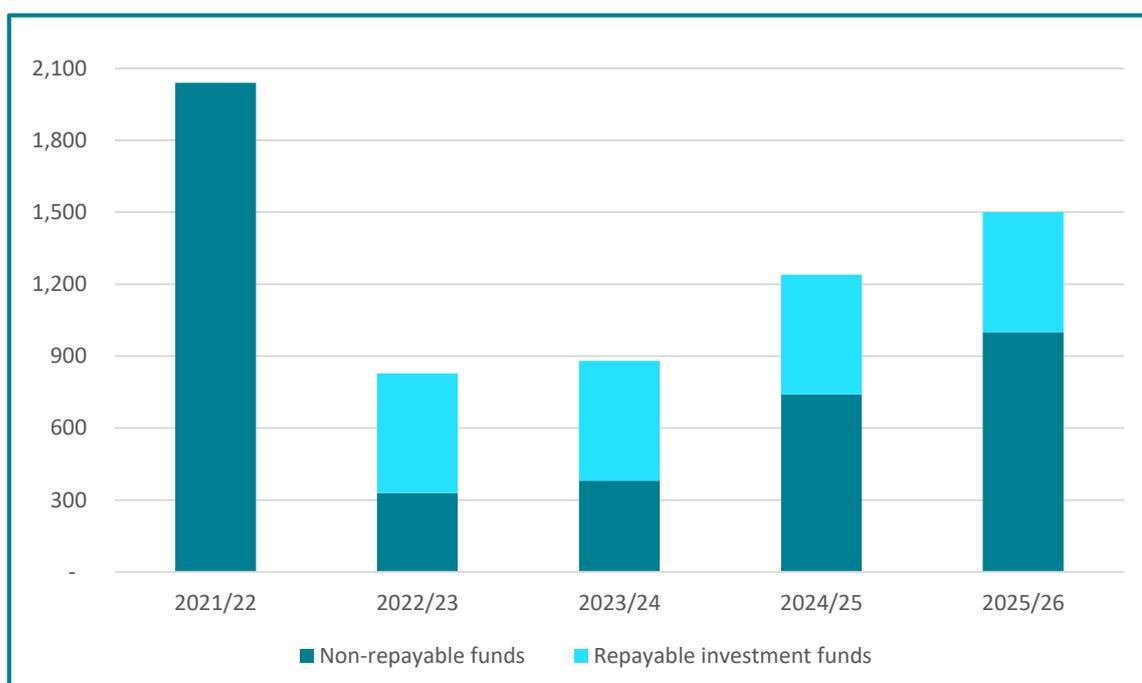


Figure 25. Annual Projected GMEF Funding Mobilised



9.1 Total Grant Request – Summary

A short-term grant of £325k in total will accelerate GMEF by providing the development capacity to implement GM’s first natural capital investment fund within 18 months and further funding to be raised to support GM’s long-term natural capital priorities.

The total grant request is detailed below:

Workstream	Financial Advisor	GMEF Manager	Ecologist	Legal and other fees	Total costs	Key Workstreams
Pilot Implementation						
Project management / site planning	11,000	2,000	5,000		18,000	<i>Project management, habitat site planning</i>
Biodiversity net gain business model development	19,000	5,000	5,000		29,000	<i>Income identification, habitat site assessment, BNG income contracting</i>
Carbon business model development	20,000	5,000	10,000		35,000	<i>Emissions reduction projections, carbon buyer engagement</i>
Pilot Implementation	29,000	3,000	-	20,000	52,000	<i>Financial model, capital structuring, investor engagement and fundraising</i>
Project delivery and learnings	11,000	4,000	-		15,000	<i>Learnings materials, workshops and preparation for model scale up</i>
Net Budget - Pilot Implementation	90,000	19,000	20,000	20,000	149,000	
VAT	18,000	-	4,000	4,000	26,000	
Total Budget - Pilot Implementation	108,000	19,000	24,000	24,000	175,000	

Workstream	Financial Advisor	GMEF Manager	Ecologist	Legal fees	Total cost	Key Workstreams
GMEF Scale Up						
Corporate funding streams (e.g. CSR, carbon market, waste levies)	-	74,000	-	-	74,000	<i>Research, negotiation and implementation of CSR, carbon credit purchase, and waste levy opportunities</i>
Enforcement undertakings	-	14,000	-	-	14,000	<i>Discussions and negotiations with companies that may face enforcement fines; promotion of opportunities; establishment of dedicated Grant Advisory Groups</i>
Local authority funding	-	14,000	-	-	14,000	<i>Engagement with Local Authorities to identify current ways in which environmental projects are funded and opportunities for alignment</i>
Clean Air Fund distribution	-	8,000	-	-	8,000	<i>Research and negotiation with GMCA / Transport for Greater Manchester with regards to Clean Air Tax; set up fund distribution processes</i>
Project management and other costs	-	10,000	-	-	8,000	<i>Project management, Trustee meetings, stakeholder liaison</i>
Further investment model development	25,000	-	-	-	25,000	<i>Financial advisory support to identify and provide strategic advice on the development of additional investment funds</i>
Total GMEF Scale Up Budget	25,000	120,000	-	-	145,000	
VAT	5,000	-	-	-	5,000	
Total Budget – GMEF Scale Up	30,000	120,000	-	-	150,000	
Total Funding Request - GMEF Scale Up and Pilot Implementation						
	138,000	139,000	24,000	24,000	325,000	

9.2 Key Risks and Mitigants

Risk	Mitigant
Funding streams fail to materialise	<ul style="list-style-type: none"> • Regular review of budgets to ensure Lancashire Wildlife Trust Grant Programme Team can scale up or down as required and become self-sustainable in the long term • Strategically target funding to develop business models and attract new sources of private investment • Funding commitments have already been secured from SUEZ, evidencing opportunity for local corporate support and role of GMEF in delivering corporate funding programmes • Funding commitment secured from the Green Recovery Challenge Fund due to strong partner collaboration in GM – GMEF will seek to showcase success from delivering a portfolio of collaborative projects.
Potential conflicts of interest with GMEF Fund Manager fundraising and project delivery objectives	<ul style="list-style-type: none"> • Clear conflict-of-interest protocols in the governance of the fund and actions of the Fund Manager • Trustee Board established with independent representation able to make decisions and provide clear direction on priorities
Ineffective Grant Advisory Group decision making	<ul style="list-style-type: none"> • Grant Advisory Group members to have appropriate level of experience and skills, representing a broad range of interests in Greater Manchester’s natural environment • Clear Terms of Reference and selection criteria • Clearly defined impact monitoring and reporting process • Steering Group provides additional advisory support and governance
Inability to recruit and / or retain good quality staff; inadequate project management	<ul style="list-style-type: none"> • Ensure Grant Programme Team is fully supported by Lancashire Wildlife Trust senior executives, the GMEF Trustee Board and Grant Advisory Groups • Ensure project milestones are reviewed and flexibility is built in to deal with the unexpected • Suitable budgeting for human resources
Local stakeholder support compromised due to funding conflicts	<ul style="list-style-type: none"> • Regular stakeholder engagement and communications to ensure a coordinated approach in sourcing funds for Greater Manchester-wide strategic projects
Failure to communicate effectively	<ul style="list-style-type: none"> • Dedicated Communications Officer and communications strategy for the fund • Regular review of communications and public feedback

Table 13. Key Risks and Mitigants

10. Key Parties

10.1 GMEF Manager: Lancashire Wildlife Trust

Founded in 1962, Lancashire Wildlife Trust has over 50 years of experience in managing large-scale projects, partnerships and funding programmes to protect and enhance the natural environment, build a strong voice for wildlife, and inspire people to connect and engage with nature.



Lancashire,
Manchester &
N Merseyside

Lancashire Wildlife Trust has 30,000 members, 4,000 volunteers, 190 staff, manages around 200 ha of nature reserves and delivers environmental education to 20,000 children per year.

Lancashire Wildlife Trust is well-known for its science-based conservation expertise and is at the forefront of bringing species such as red squirrels back from the brink. Lancashire Wildlife Trust has recently reintroduced the Manchester Argos butterfly to Greater Manchester after an absence of 150 years.

Lancashire Wildlife Trust has a range of environmental expertise including in advocacy, campaigning, land management and partnerships; programme management, wider stakeholder engagement, consultation and communication; and fundraising, including experience in new and more diverse income streams and fund distribution.

With an annual turnover of £5 million, a £1 million trading arm and a £1 million landfill distribution arm, Lancashire Wildlife Trust is experienced at managing large-scale projects including:

- Chat Moss – major lowland peat land acquisition, restoration and habitat creation;
- Bickershaw Country Park – natural flood storage;
- Wigan Flashes – land reclamation and transformation into the country's first proposed National Nature Reserve; and
- Great Manchester Wetlands Partnership – areas designated as a Nature Improvement Area.

10.2 GMEF Sponsor: Greater Manchester Combined Authority

GMCA is working with partners to improve the lives of people in Greater Manchester.

GMCA is made up of the ten Greater Manchester councils and the Mayor, who work with other local services, businesses, communities and other partners to improve the city region. GMCA’s vision is to make Greater Manchester, home to more than 2.8 million people, one of the best places in the world to grow up, get on and grow old.

As a devolved city region, GMCA gives local people more control over issues that affect their area. GMCA enables the region to speak with one voice and can make a strong case for resources and investment to help the entire north of England achieve its full potential.

GMCA recognises that the natural environment in the Greater Manchester region is fundamental to the health and wellbeing of the residents and the foundation of the local economy.

GMCA has set out bold plans to create a city region that is fit for the future and will lead a new environmental revolution in the UK.

GMCA is working to ensure that immediate environmental leadership and action will tackle the scale of the environmental threats facing the region and secure a cleaner and healthier environment for all.

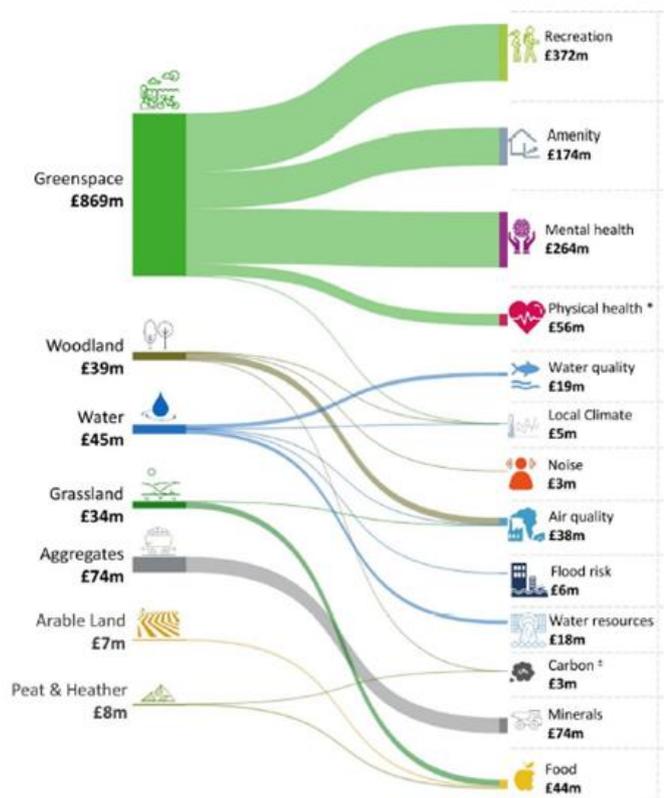


Figure 26. Benefits from Greater Manchester’s Natural Environment

10.3 GMEF Investment Advisor: Finance Earth

Finance Earth is the UK's leading environmental impact investment boutique, offering corporate finance advisory and fund management services across the natural and built environment.



Overview of Finance Earth



Finance Earth has the leading UK track record of designing combined environmental and social impact funds.



Finance Earth currently manages over £50 million of blended or aligned social and environmental impact funds.



Finance Earth's team has designed over £200 million of impact investment structures.



Finance Earth has strong stakeholder relationships with leading environmental organisations.



Finance Earth has extensive experience in both innovative financing and natural capital asset management.



Finance Earth is a wholly employee-owned social enterprise, with 51% of profits being recycled in on-mission activities and investments.

11. GMEF Development and Delivery Team

11.1 GMEF Fund Management Team – Lancashire Wildlife Trusts

<p>Tom Burditt CEO</p>	
<p>Daveen Wallis Programme Manager, Director of Nature and Wellbeing</p>	<p>As Programme Manager for the Carbon Landscape Partnership, funded by National Lottery Heritage Fund, Daveen was involved right from the concept through meetings with partners and stakeholders across the Great Manchester Wetlands Partnership. Daveen was responsible for the co-ordination of the Stage 1 bid which involved the collation of projects and shortlisting those that gave the partnership the best fit to NLHF criteria, variety, value for money and minimal risk. She has focussed on how we can demonstrate impact and overseen the mid-term evaluation. She has put in place effective reporting structures for managing a programme of 22 projects and ensuring Steering Group are fully briefed and able to make appropriate decisions. As the accountable body, NLHF expect Lancashire Wildlife Trust to put in robust monitoring and Daveen has been praised by the NLHF monitor for the systems and reporting that has highlighted achievements to date, successes and areas of high risk including actions to take to overcome these. Daveen has led the management of other large scale projects and programmes, with a variety of funders, and has been involved in a range of consortia / partnerships. Her work in developing partnership and trust is underpinned by agreements and contracts, and effective systems. Daveen has been instrumental in setting up new partnerships such as the partnership with Lancashire Care NHS Trust where she negotiated and secured £1.7 million towards MyPlace. She has actively demonstrated the social value and impact of our work for both wellbeing and employment.</p>
<p>Joanne Anderson, Director of Finance</p>	<p>Joanne has over 20 years’ finance experience and qualified with CIMA in 2001. She worked as a manager responsible for budgeting at the University of Central Lancashire where she completed her MBA. She moved to BAE Systems as a Finance Manager before emigrating and becoming the Chief Financial Officer for Ipsos in Australia. Since her return to the UK she took up the position of Head of Finance with EMIS Health and moved to the Lancashire Wildlife Trust in April 2018. Since joining Lancashire Wildlife Trust Joanne has revolutionised the organisation’s finances. She has bought in an online finance management system (Xledger) that has changed the way to monitor our finance in real time, and can access finance within minutes. This change not only brings efficiency, but also the ability to monitor spend against budget in real time, crucial when managing large projects with a variety of funding streams. Having taken on the management of a number of discrete landfill tax funds Joanne has put the systems and governance in place to ensure compliance, monitoring and management can be achieved in the delivery of these programmes.</p>

<p>Andy Rowett, Fund Manager, Lancashire Environmental Fund</p>	<p>Andy joined the joined Lancashire Environmental Fund (“LEF”) in 2001 as Waste Projects Officer and was responsible for overseeing the funding of sustainable waste management projects. In 2004 Andy took over the role as Fund Manager at LEF as the Fund changed its focus to wholly public amenity and environmental projects. Andy in his time at the Fund has been responsible for overseeing the distribution of over £20 million of grants to over 1000 projects. During Andy’s time as Fund Manager, he has been involved in reviewing and adapting the design and structure of the fund, assessing potential investee prospects, managing the assessments of each application and the decision making process, management of a portfolio of projects with a diverse range of projects and varying start and finish dates, regular evaluation and annual reviews, and celebration events with key stakeholders as well as regular engagement reaching out to existing and potential stakeholders.</p>
<p>Mick Weston, Director of Development</p>	<p>Mick has worked in a range of roles within the Wildlife Trust for Lancashire, Manchester and North Merseyside for over 30 years and is currently the Director of Development. In his early career he was instrumental in developing innovative projects in urban areas aimed at improving people engagement and promoting biodiversity in towns and cities and was an active member of the Urban Nature Partnership. He has also managed a range of large-scale projects including the development of visitor centre attractions at the Brockholes and Mere Sands Wood reserves, as well as working with partners on delivering large scale ‘living landscape’ projects and land acquisitions. Mick led on the development of ‘Chat Moss Vision’ a partnership vision for our Manchester Mosses SAC and wider landscape and the success of several site acquisitions including an application to NLHF which secured nearly 200 hectares of land with active peat operations at Little Woolden Moss. This has led to taking a key role in the formation and development of the Lancashire Wildlife Trust’s Lancashire Peatland Initiative and working alongside the Yorkshire Peat Partnership to ensure we are working in collaboration in our land management, advocacy and influencing work to secure more peatlands that lock in carbon. Mick led the work in securing the Great Manchester Wetlands Nature Improvement Area designation and currently chairs the Great Manchester Wetlands Partnership. He has a key interest in developing innovative and sustainable funding models for land management and can demonstrate innovative case studies that he has developed as a way to secure sustainable management of the sites that have been restored across our partnership. Over the last 15 years he has been particularly involved at a national and regional level in investigating the role which peatlands can play in climate change and has worked with a number of corporate organisations such as British Airways and Heathrow Airport to secure carbon compensation funding for the restoration of damaged Mossland sites in the North West.</p>
<p>Tim Mitcham, Director of Conservation</p>	<p>Tim Mitcham obtained a degree in Human Ecology at Huddersfield Polytechnic in 1983 and has worked in nature conservation since then. He initially worked for the Field Studies Council as a field tutor before a period with The Conservation Volunteers and Shropshire Wildlife Trust undertaking practical conservation and managing training provision. He has worked for the Lancashire Wildlife Trust since 1989, and been involved with a broad range of roles from community conservation projects, marketing and planning related work, and is widely recognised and respected for his contribution to nature conservation. Becoming</p>

Conservation Manager in 1998, Tim led on the development of Biodiversity Action Planning in Lancashire and chaired the initiative for ten years. Tim now manages the Conservation Department and leads on nature reserves management, species and habitat projects, and planning and conservation policy. A key area of the Wildlife Trusts strategic work has been our Living Landscapes ambitions, a concept that has been a priority for Wildlife Trusts nationally way before the introduction of Nature Improvement Areas. Tim has worked across a variety of landscapes and partnerships to campaign for major initiatives such as the Local Wildlife Site Systems, Biodiversity Action Plan Partnerships and Environment / Sustainability Forums. He has provided support to Local Record Centres in their work to gather better and more robust data. Tim also sits in the Grants Assessment Panel for Lancashire Environment Fund, supported a number of other Grant Providers through Board representation and contribution to assessments throughout his career. He played an important contribution in the success of the Great Crested Newt Licencing contract in Lancashire, and has also most recently led on the development of a proposed trial project for the new Defra ELMS.

11.2 GMEF Trustee Board

Anne Selby
Chair,
Greater
Manchester
Natural Capital
Group

Anne trained in geography and Town Planning. Her early career was spent in the City Farm movement, followed by a major access project with British Waterways and the Countryside Commission. She worked for Wyre Borough Council in planning and tourism, then moving to Bury MBC Planning Department. She joined the Wildlife Trust as Deputy Director in 1992, becoming CEO in 1994. During her time with the Wildlife Trust Anne has developed the charity from a very small operation into a significant NGO with around 200 staff, a group turnover of £7-8 million per annum, 30,000 members and thousands of volunteers. She has served on many regional and national bodies over the years, including National Heritage Lottery Regional Committee, The Regional Development Agency, the Mersey Basin Campaign, The NW Regional Assembly, and the NW Forestry Advisory Committee. She serves as a Board member of the Royal Society of Wildlife Trusts. In Greater Manchester Anne has been heavily involved in the Low Carbon Hub, now the Green City Partnership and Chairs the Natural Capital Group that reports into the Combined Authority. Anne has also worked on the two Mayoral Green Summits and been a speaker at the summits and the Natural Capital annual conferences. In terms of fund distribution, she has a diverse experience. As a Committee member for the Heritage Lottery Fund, she had experience of handling a multiplicity of competitive bids and ensuring due diligence. Similarly, the board membership of the NWDA had similar duties and responsibilities. Within the Wildlife Trusts, Anne Chairs the Strategic Development Committee that handles grant and loan distribution throughout the Wildlife Trusts. Of specific relevance to the Greater Manchester Environment Fund, Anne negotiated and established the Lancashire Environment Fund twenty years ago and was integral to determining the governance and investment processes. This

	<p>is a landfill tax distributions fund and the Lancashire Trust has been the administrator during this period, distributing over £20million to charities and worthy causes, since it commenced operating. As the CEO of a leading environmental NGO and the Chair of the Greater Manchester Natural Capital Group, Anne is knowledgeable about the multiple funding sources which will form the Greater Manchester Environmental Fund, the government legislation behind them and the complexities of each different stream of environmental funding. Anne has established networks and relationships with many of the key players at member and officer levels and existing contacts with many of the potential funding sources for GMEF.</p>
<p>Clive Memmott CEO, Greater Manchester Chamber of Commerce</p>	
<p>Tom Birditt CEO, Lancashire Wildlife Trust</p>	
<p>Anthony Hatton CEO, Peel Land and Property</p>	
<p>Mark Atherton Director of the Environment, GMCA</p>	

11.4 GMEF Steering Group

Adam Freeman Head of Corporate Social Responsibility, Manchester Airport Group	
Jo Holden Sustainability Director, Peel Land and Property LLP	
Jo Harrison Environment Director, United Utilities	
Anna Bell Contract Director, Suez	
Mark Easedale Environment Manager, Environment Agency	

11.6 GMEF Investment Advisory Team: Finance Earth

<p>James Mansfield Co-founder Director</p>	<p>Jamie co-founded Finance Earth in 2016 and leads its advisory work on structuring, implementing and managing investment funds for the natural and built environment.</p> <p>Key experience:</p> <ul style="list-style-type: none"> • Leads advisory work with Greater Manchester Combined Authority, the Environment Agency, WWF, the RSPB and DEFRA, providing strategic corporate finance advice to deliver and grow high impact environmental investments, including the UK's first debt financed Habitat Bank. • Designed investment model, originated and structured capital raise for CORE, a £50 million community solar impact investment fund that transitions solar assets into community ownership. • Investment Director for CORE, leading origination, asset valuation, investment due diligence and SPA negotiation processes to acquire 37MW of operational solar assets, portfolio forecasted to generate over £10 million of community benefit donations. • Structured over £150 million of long-term investments with institutional investors in real assets acting as a principal and advisor on a broad variety of transactions within the environmental arena, including: acquisition due diligence, buy-side, capital (i.e. debt/equity/mezzanine) raising and structuring. • First class MEng in Renewable Energy, Exeter University.
<p>Richard Speak Co-founder Director</p>	<p>Richard conceived and co-founded Finance Earth in 2016 as part of the Finance for Sustainability group ("FFS"), a group of leading social and environmental impact advisors and fund managers in the UK.</p> <p>Key experience:</p> <ul style="list-style-type: none"> • A leader in the growing Social and Environmental Investment sector and founder of six of the leading advisory and fund management firms in the field. • Investment director for CORE, leading on transactional negotiation including asset pricing, warranties and indemnities and portfolio refinancing strategy and execution. • Advised on the development of over £250 million of impact investment funds dedicated to the fields of the environment, sport, art and culture at FFS, one of the largest group of Impact Fund Managers in the UK. • Raised the first ever £10 million Social Solar Bond aimed at reducing fuel poverty in the UK, and led the completion of £135 million of social investment transactions as Head of Enterprise and Investor Advisory at Social Finance. • Over 10 years of M&A experience at Pall Mall Capital Limited, a boutique mid-cap corporate finance advisor specialising in cross-border deals, performing a lead advisory role as a Director on a broad variety of transactions. • Securities & Investments Institute Diploma, CISI, London. • Qualified Chartered Accountant (ICAS) at EY. • LLB in Law, Lancaster University.

<p>Richard Fitton Associate Director</p>	<p>Richard joined the Finance Earth team in 2019 and leads EF’s advisory work on RSPB, helping them to optimise their conservation investment programme</p> <p>Key experience:</p> <ul style="list-style-type: none"> • Richard manages the RSPB advisory mandate, working closely with its Conservation Investment and Finance teams in providing a range of environmental investment consultancy services, including: <ul style="list-style-type: none"> • Financial modelling and fund structuring guidance for conservation and renewable energy investments; • Fundraising services in relation to Habitat Banking models, including completing the first debt-financed Habitat Banking model in the UK in 2019; • Over 3 years as Associate Director of Investment Banking at Viet Capital Securities in Ho Chi Minh City, managing IPO and M&A transactions for the largest investment bank in Vietnam. • Over 3 years of experience in M&A advisory at top London firms BDO LLP and Smith & Williamson. • M.Sc Sustainability in Energy Provision and Demand Management, Centre of Alternative Technology (“CAT”). • Qualified Chartered Accountant (ACA) at BDO LLP.
<p>Alicia Gibson Senior Associate</p>	<p>Alicia joined Finance Earth in 2017 and is responsible for the strategic design and implementation of impact investment models for the natural environment.</p> <p>Key experience:</p> <ul style="list-style-type: none"> • Manages EF’s advisory work with Greater Manchester Combined Authority, the Environment Agency, NatureScot, the Wildlife Trusts and WWF to design financing models for the natural environment • Built the business case for a £50 million natural environment impact fund for DEFRA, and designed the inaugural natural capital investment plan for GM. • Investment due diligence and solar asset valuation experience for the CORE investment fund; designed impact monitoring and evaluation methodology for CORE’s investments. • Three years of audit and advisory experience as an Assistant Manager in Deloitte’s private equity team, leading teams in the planning and completion of statutory audits and supporting global private-equity backed clients in their expansion and exit strategy. • Member of ICAEW’s Sustainability Committee, advising on the design of its sustainability strategy and policies. • Qualified Chartered Accountant (ACA). • BSc Economics, University of Bristol; specialism in environmental economics and sustainable development.

12. Appendix

12.1 Impact and Funding Criteria

Impact Criteria		
	Impact outcome	Example
Impact	Manage land sustainably	<ul style="list-style-type: none">• Woodland planting and restoration• Peatland restoration
	Improve the water environment	<ul style="list-style-type: none">• Natural flood alleviation schemes• Sustainable drainage schemes
	Achieve net gain in biodiversity	<ul style="list-style-type: none">• GM's Nature Recovery Network
	Increase investment in the natural environment	<ul style="list-style-type: none">• New business models• Blended finance models
	Increase natural environment engagement	<ul style="list-style-type: none">• Volunteering and employment opportunities
Financial and Operational Criteria		
Grant size	Grant funding scale dependent on funding programme	
Financial eligibility	Financial accounts and budget forecasts must demonstrate the ability for the project developer to maintain solvency and enable future operation and growth	
Operational eligibility	An appropriate operating team; robust governance structure and support from key stakeholders	
Structural eligibility	An operating entity incorporated in the UK	

12.2. BNG Income Assessment Key Assumptions

Assumption		Reference
BNG unit cost (£)	12,000	GM estimate
Proportion BNG (%)	10	Environment Bill (2019)
Annual BNG offsite demand per ha (units)	33	Salford residential and non-residential development estimated impact on BNG
Salford market size in Greater Manchester (%)	5.5-6.3	Estimated based on Salford BNG share of 5.5% and proportion of annual development of 6.3%
Annual BNG offsite demand (units)	558	Calculation – scale up Salford demand
Annual BNG offsite demand (£)	5.5m – 6.4m	Calculation – multiplication of BNG offsite demand by cost per unit

13. Glossary

Term	Definition
Biodiversity net gain	Payments for conservation or restoration activities to compensate for unavoidable environmental damages that occur during development.
Blended finance	The complementary and strategic use of public or private funds, including concessional tools, to mobilise additional capital flows (public and/or private) to emerging markets.
Carbon market	Carbon trading and markets refer to the trading of carbon credits representing units (tonnes) of carbon dioxide.
Due diligence	Conducting an appraisal of a business or activity to evaluate its commercial and impact potential
Ecosystem services	The broad array of benefits derived from the natural environment, such as food, water, flood control, and pollution removal.
Environmental Impact Bond	A pay-for-performance (or pay-for-success) contract that aims to address an environmental problem
Financial model	A financial rereport is presented to accurately forecast the price or future earnings performance of a company/ investment
Green infrastructure	Nature based structures providing benefits from nature to people. Green infrastructure aims to enhance nature's ability to deliver multiple valuable ecosystem goods and services, such as clean air or water, replacing or supplementing traditional infrastructure.
Investment model	An investment structure that can aggregate cash flows and be used to raise investment capital
Impact investors	Investors providing investments to deliver positive, measurable social, environmental and financial outcomes
Natural Capital	The world's stocks of natural assets including geology, soil, air, water and all living things.
Project developers	Individuals, organisations, or businesses involved with designing and implementing projects to support woodland creation, and other ecological interventions
Technical assistance	Third party technical, legal and financial support to develop investable projects, tailoring them to investor expectations

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